



*Healthy People  
2000 Review  
1997*



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Centers for Disease Control and Prevention  
National Center for Health Statistics



# HEALTHY PEOPLE 2000

*National Health Promotion and  
Disease Prevention Objectives*

## *Healthy People 2000 Review 1997*

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Centers for Disease Control and Prevention  
National Center for Health Statistics

Hyattsville, Maryland  
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## **U.S. Department of Health and Human Services**

Donna E. Shalala  
Secretary

### **Public Health Service**

John Eisenberg, M.D.  
Acting Assistant Secretary for Health

### **Centers for Disease Control and Prevention (CDC)**

David Satcher, M.D., Ph.D.  
Director

### **National Center for Health Statistics**

Edward J. Sondik, Ph.D.  
Director

# Preface

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The *Healthy People 2000 Review, 1997*, fifth in a series of profiles tracking the year 2000 objectives, is submitted by the Secretary of Health and Human Services to the Congress of the United States in compliance with the Health Services and Centers Amendments of 1978. This report was compiled by the National Center for Health Statistics, Centers for Disease Control and Prevention (CDC). The National Committee on Vital and Health Statistics, the Office of Disease Prevention and Health Promotion, and lead agencies for the year 2000 objectives served in a review capacity.

*Healthy People 2000 Reviews*, which replace the *Prevention Profile* publications that monitored the 1990 national health objectives, continues the series of annual profiles of the Nation's health as an integral part of the Department's disease prevention and health promotion initiative for the year 2000. This initiative was unveiled in September 1990 by the Secretary of the U.S. Department of Health and Human Services with the release of *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. This publication provides annual tracking data, if available, for objectives and subobjectives in all priority areas throughout the decade. Midcourse review modifications to the objectives have been incorporated.

# Acknowledgments

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Overall responsibility for planning and coordinating the content of the volume rested with the Division of Health Promotion Statistics, National Center for Health Statistics (NCHS), under the general direction of Diane Wagener and Richard J. Klein.

The production of the *Healthy People 2000 Review* was accomplished by several working teams under the guidance of Kathleen M. Turczyn and Richard J. Klein. Team members included Fred Seitz, Colleen Ryan, Christine M. Plepys, Cheryl V. Rose, Jean Williams, Gail Jones, Richard J. Klein, and Kathleen M. Turczyn. Patricia A. Knapp provided additional computer programming assistance.

Publications management and editorial review were provided by Gail V. Johnson and Rolfe W. Larson. The designer was Sarah M. Hinkle. Graphics were supervised by Stephen L. Sloan. Production was done by Annette F. Holman. Printing was managed by Joan D. Burton.

Publication of *Healthy People 2000 Review, 1997* would not have been possible without the contributions of many staff members throughout NCHS and numerous other agencies, particularly Debbie Maiese, Office of Disease Prevention and Health Promotion. These people gave generously of their time and knowledge; their cooperation and assistance are gratefully acknowledged.

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# Introduction

## Background

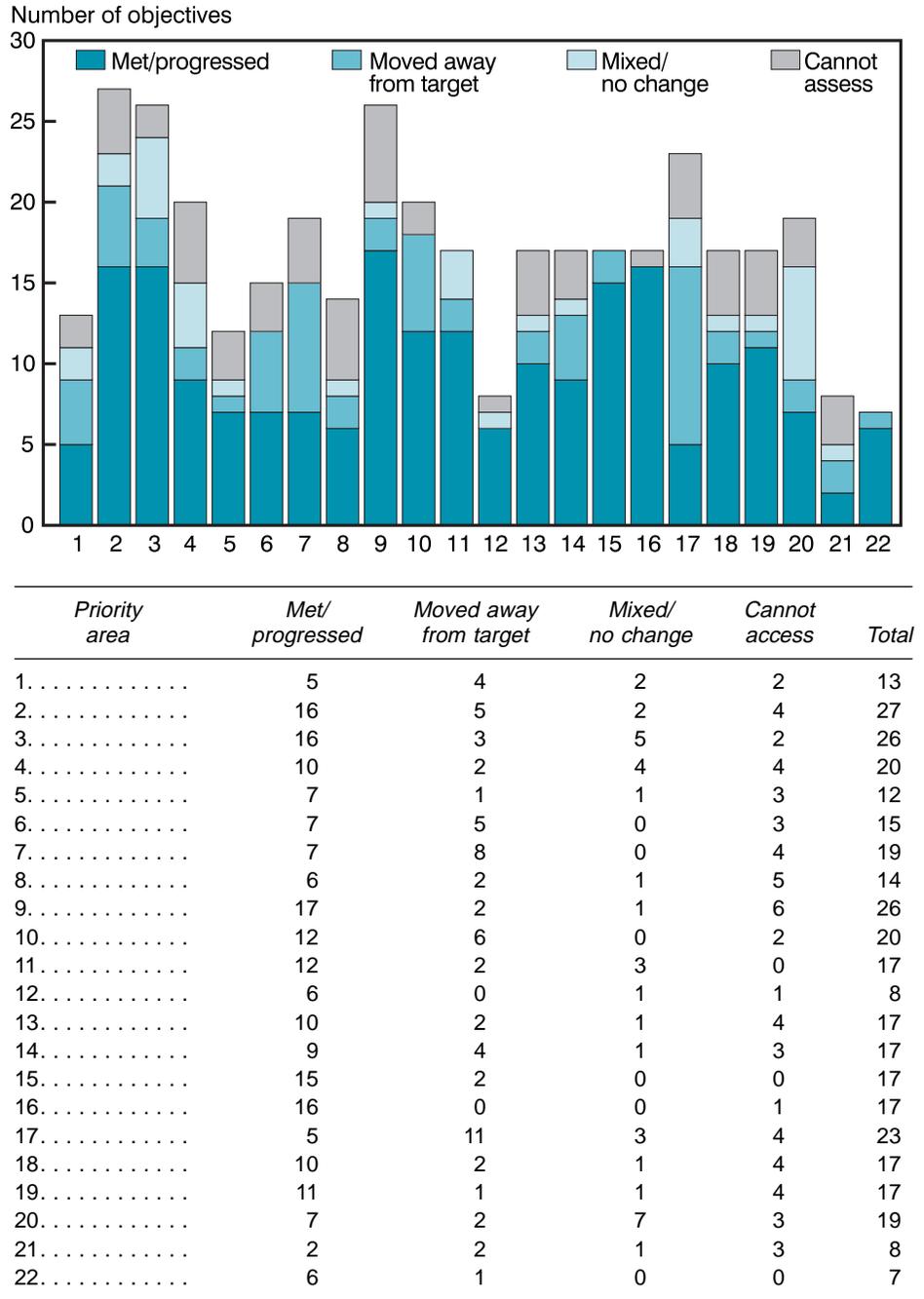
*Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (1) presents a national prevention strategy for significantly improving the health of the American people. *Healthy People 2000* defines three broad goals and 319 objectives. The goals focus on increasing the span of healthy life, reducing health disparities, and achieving access to preventive services for everyone. The objectives are organized into 22 priority areas. For each of these priority areas, one or more U.S. Public Health Service agencies are designated to coordinate activities directed toward attaining the objectives (see appendix table I).

The Public Health Service (PHS) periodically reviews progress toward the year 2000 objectives for specific priority areas and for special population groups in briefings with the Assistant Secretary for Health. Summaries of these briefings are published as part of *Public Health Service Progress Review Reports on Healthy People 2000* (2). The *Healthy People 2000 Review* series, which began with *Healthy People 2000 Review, 1992* (3), presents an overview of the current status of progress toward all of the national year 2000 objectives. The 1992–94 *Reviews* (3–5) reported on the objectives as published in the 1990 *Healthy People 2000* (1). Beginning with the 1995–96 *Review* (6), the current status of progress toward the year 2000 targets includes all additions and modifications that resulted from the 1995 PHS midcourse review of the *Healthy People 2000* objectives (7) (see the [Midcourse Modifications](#) section in the appendix). The *Healthy People 2000* objectives, tracking data, and additional information are available on the Internet (see the [Additional Sources of Monitoring Data and Information](#) section in the appendix).

## Summary of Progress

There are 319 unduplicated main objectives. Because some priority areas share identical objectives, there is a total of 376 objectives including the duplicates. Subobjectives for minorities and other special populations were

**Figure 1. *Healthy People 2000* objectives: Summary of progress by priority area**



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics.

established to address increased health risks or disparities compared with the total population. There are 319 subobjectives; with duplicates, there are 429 (7).

Movement either toward or away from the target is determined by the direction of the change between the baseline and the most recent data point. Some of these changes are relatively small and may be within what could be

expected on the basis of sampling or random variation. For objectives with more than one measure (“compound” objectives), if data show trends in different directions, progress is labeled as “mixed.” For compound objectives with partial data, progress is determined by the direction of the measure(s) with data (for example, objective 12.4). Finally, a few objectives are very broad in scope and tracking data are not

available; in these cases the subobjectives are being used to track progress (for example, objective 17.14).

The following summary of progress is based on the 319 unduplicated objectives. At the midpoint of the decade, 13 percent of the objectives have reached or surpassed the year 2000 targets. Progress toward the targets has been made for another 43 percent of the objectives, and 18 percent show movement away from the targets. Data for 7 percent of the objectives show mixed results and 2 percent show no change from the baseline. Data beyond the baseline have been obtained for 30 objectives that had only baseline data last year. Now only 44 objectives (14 percent) have baseline data but have no additional data with which to evaluate progress (several objectives in this category have supplemental data that cannot be used for determination of progress). Four new baselines were obtained this year (for objectives 4.12, 4.16, 4.17, and 18.11). Baselines have yet to be obtained for 11 objectives (3 percent) (see [priority area 22](#)). [Figure 1](#) shows the progress of the objectives by priority area.

## Organization and Scope of This Review

This *Review* is organized into four major sections. The introductory section includes a brief history of *Healthy People 2000* and a summary of the progress of all year 2000 objectives through June 1997.

The second section is a chart section. Each year, beginning with the 1995–96 issue, the *Review* focuses on special population groups targeted by *Healthy People 2000* because of increased risk of disease, injury, or disability. This year, a selection of subobjectives for people with disabilities is highlighted with a series of charts showing the latest data on progress or lack of progress toward the subobjective targets. The choice of charts is meant to illustrate and does not confer more relative importance to the subobjectives shown as opposed to subobjectives not shown.

The third section consists of 22 chapters, one for each *Healthy People 2000* priority area. Each chapter contains a summary data table, a text discussion of specific data issues, a chart representing one of the priority area

objectives, and the full text of the objectives in that priority area. Baseline data that have been revised from those published in the *Healthy People 2000 Midcourse Review and 1995 Revisions* (7) are indicated with a footnote “a” in the data table.

The text for each chapter includes a brief discussion of the public health significance of the priority area, data highlights, a summary of the progress for the objectives, and data issues that may not be apparent from the summary table or the text of the objective, such as proxy measures, differing tracking systems, and operational definitions.

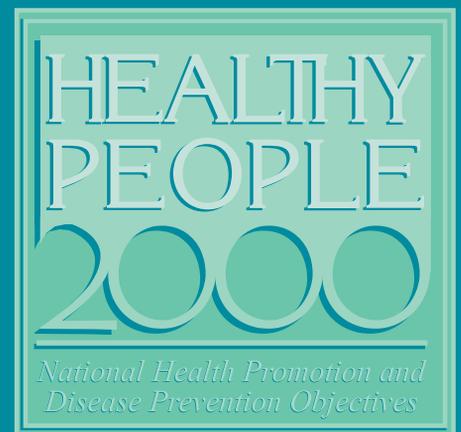
Most charts show the movement of one of the priority area objectives toward or away from the objective target. Some show the latest data for special population subobjectives. As in the chart section, the choice of charts does not confer more relative importance to any of the objectives shown.

An [appendix](#) and [seven appendix tables](#) comprise the fourth section. The [appendix](#) presents and discusses major data issues involved in the monitoring of the objectives and subobjectives. Sources of additional information on *Healthy People 2000* are also presented.

- [Table I](#) lists the priority area PHS lead agencies
- [Table II](#) lists the acronyms used in the list of data sources in the chapter data summary tables
- [Table III](#) displays the cause-of-death categories used for the *Healthy People 2000* mortality objectives compared with the cause-of-death categories used for the mortality tabulations published by the National Center for Health Statistics
- [Table IV](#) shows trends in the Health Status Indicators developed for objective 22.1
- [Table V](#) presents the latest available Health Status Indicators data for racial and Hispanic-origin population groups
- [Table VI](#) shows progress since the 1987 baseline for the age-related objectives; these four *Healthy People 2000* objectives continue monitoring the data for the five major life-stage goals of the 1990 health promotion and disease prevention initiative (8)
- [Table VII](#) lists the publications in the *Healthy People 2000 Statistical Notes* series to date.

## References

1. U.S. Department of Health and Human Services. *Healthy people 2000: National health promotion and disease prevention objectives*. Washington: Public Health Service. 1991.
2. U.S. Department of Health and Human Services. *Public Health Service progress review reports on healthy people 2000*. Washington: Public Health Service. 1991–93.
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8. U.S. Department of Health and Human Services. *Promoting health/preventing disease: objectives for the nation*. Washington: Public Health Service. 1980.



# *Charting Special Populations: Disability-Related Objectives*

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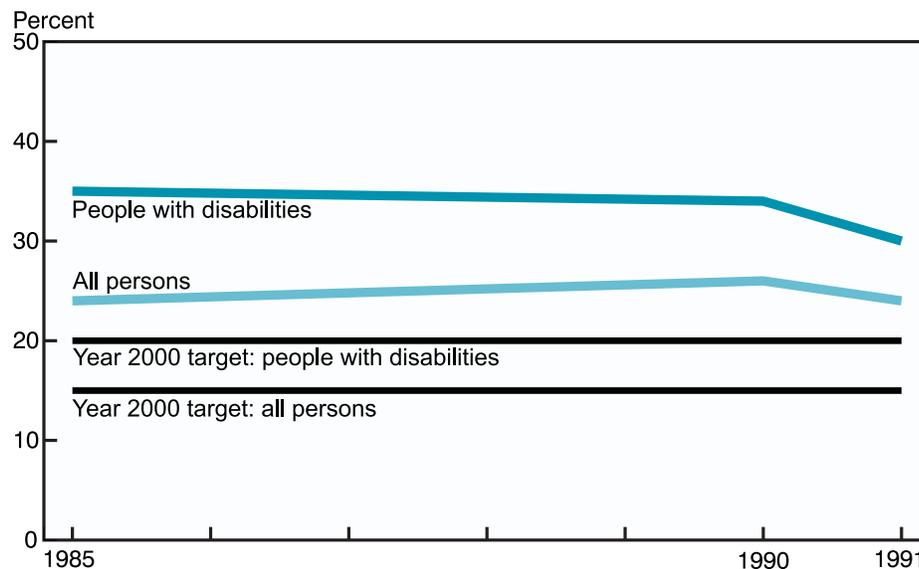
# Charting Special Populations: Disability-Related Objectives

This special chart section focuses on objectives in *Healthy People 2000* that address people with disabilities. The objectives either target people with disabilities or target causes of disabilities. Included in the 20 figures are selected data from a total of 34 objectives for people with disabilities. The figures shown are illustrative; the choice of objectives and subobjectives does not confer more relative importance to those shown.

## No Leisure-Time Physical Activity

The proportion of persons who engage in no leisure-time physical activity decreased between 1990 and 1991. Among all people 18 years and over there was a slight decrease (8 percent) and among people with disabilities there was a 12-percent decrease.

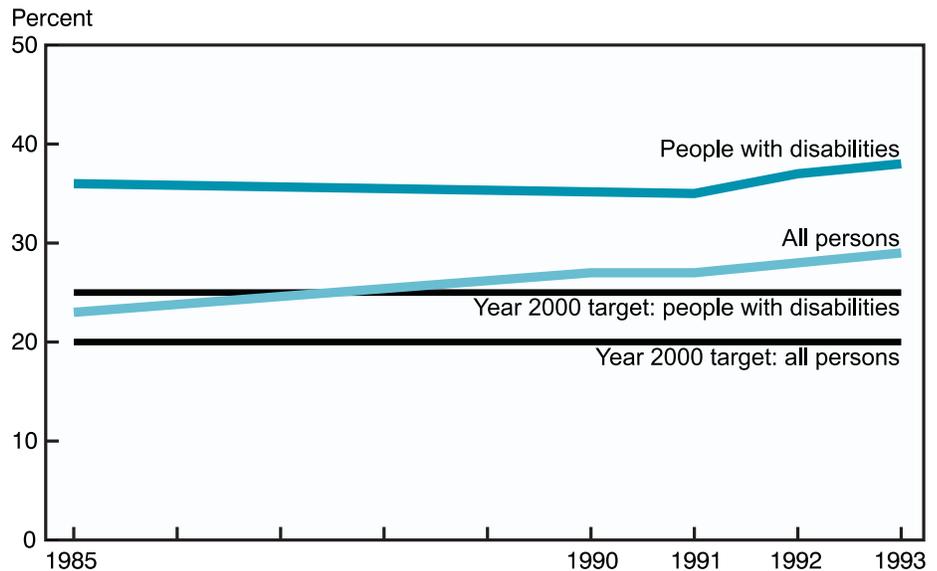
**Figure A. Proportion of people 18 years and over who engage in no leisure-time physical activity: United States, 1985, 1990–91, and year 2000 targets for objective 1.5**



## Overweight

People with disabilities have a higher overall prevalence of overweight than the total population. Overweight prevalence among people with disabilities has increased slightly from 36 percent in 1985 to 38 percent in 1993, moving away from the year 2000 target of 25 percent. This increase, however, is much lower than the increase for the total population (26-percent increase between 1985 and 1993).

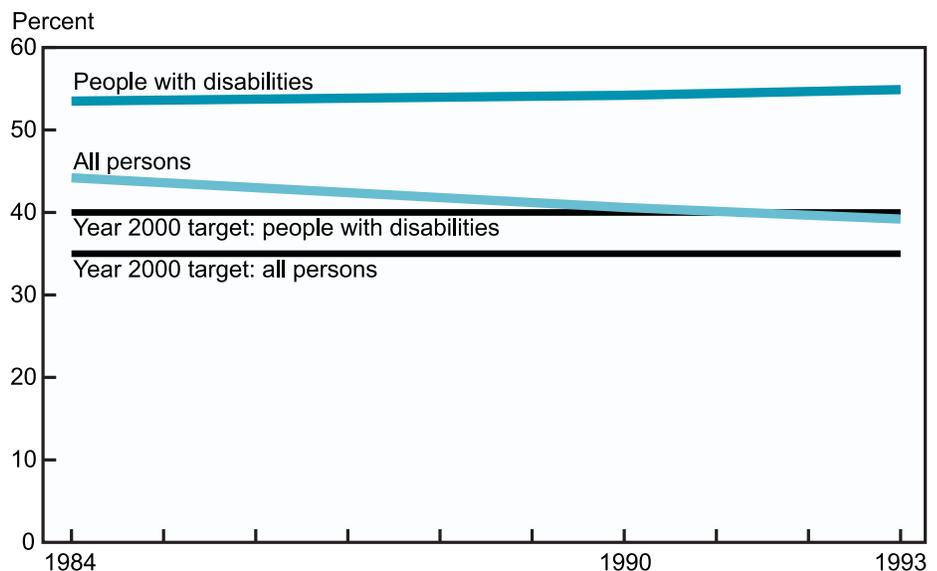
**Figure B. Overweight prevalence from self-reported height and weight among people 20 years and over: United States, 1985, 1990–93, and year 2000 targets for objectives 2.3 (1.2, 15.10, and 17.12)**



## Adverse Health Effects From Stress

The proportion of people with disabilities who have experienced adverse health effects from stress increased slightly from 1984 to 1993, from 53.5 percent to 54.9 percent. For the total population, the proportion decreased from 44.2 percent to 39.2 percent over the same time period. This widening disparity highlights the need for intervention.

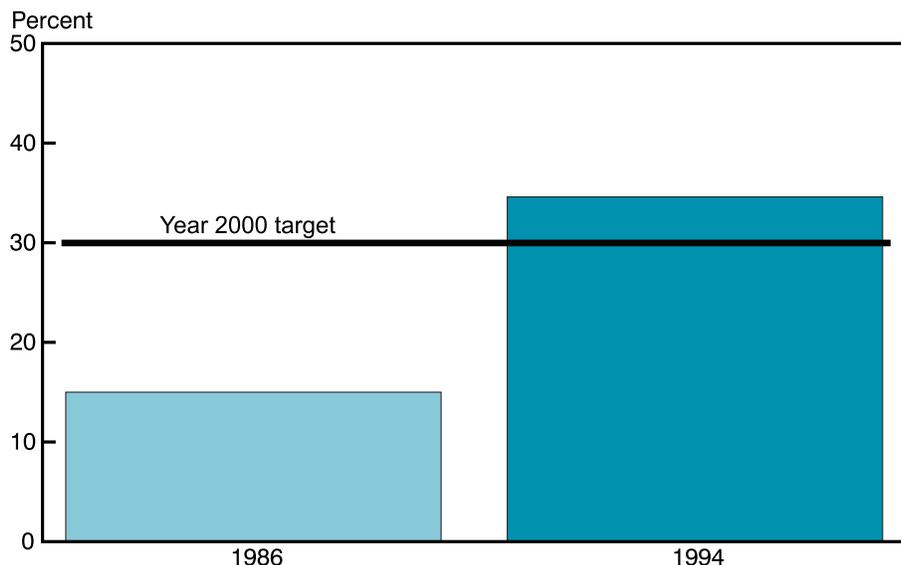
**Figure C. Proportion of people 18 years and over who experience adverse health effects from stress: United States, 1984, 1990, 1993, and year 2000 targets for objective 6.5**



## Use of Community Support Programs

The use of community support programs by people with severe persistent mental disorders more than doubled since the 1986 baseline of 15 percent to 34.6 percent in 1994. This objective has surpassed the year 2000 target of 30 percent.

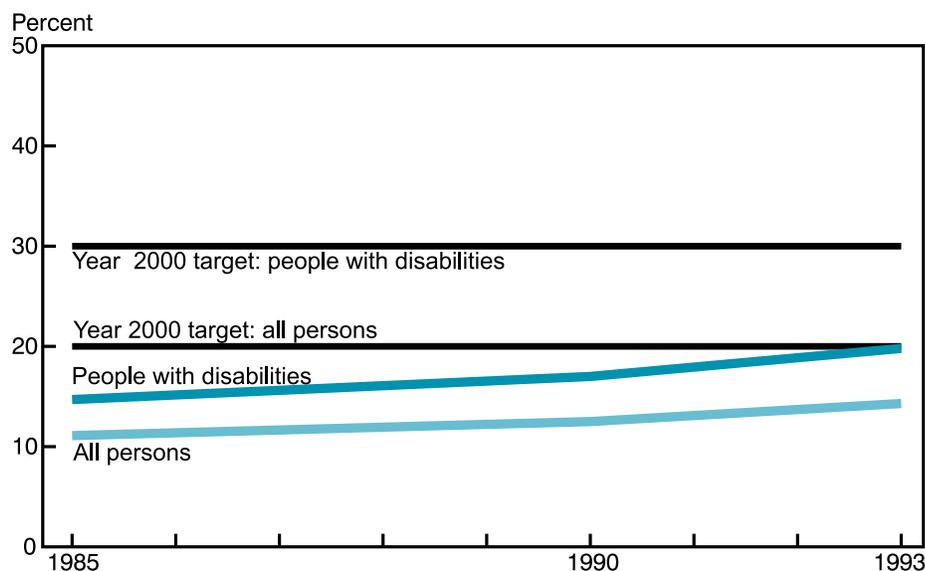
**Figure D. Proportion of people 18 years and over with severe persistent mental disorders who use community support programs: United States, 1986, 1994, and year 2000 target for objective 6.6**



## Seeking Help With Personal Problems

For both the total population and people with disabilities, the proportion of people who seek help in coping with personal and emotional problems has increased. The increase was from 11.1 percent in 1985 to 14.3 percent in 1993 for the total population and from 14.7 percent to 19.8 percent for people with disabilities.

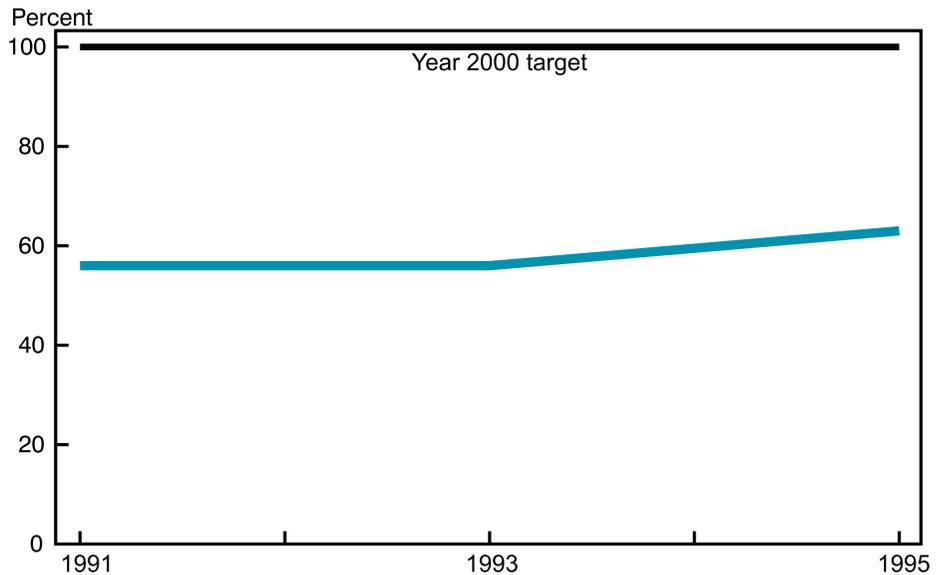
**Figure E. Proportion of people 18 years and over who seek help in coping with personal and emotional problems: United States, 1985, 1990, 1993, and year 2000 targets for objective 6.8**



## Disabled Children in Preschool

The proportion of disabled children 3–5 years enrolled in preschool increased from 56 percent in 1991 to 63 percent in 1995, but is still far below the year 2000 target of 100 percent.

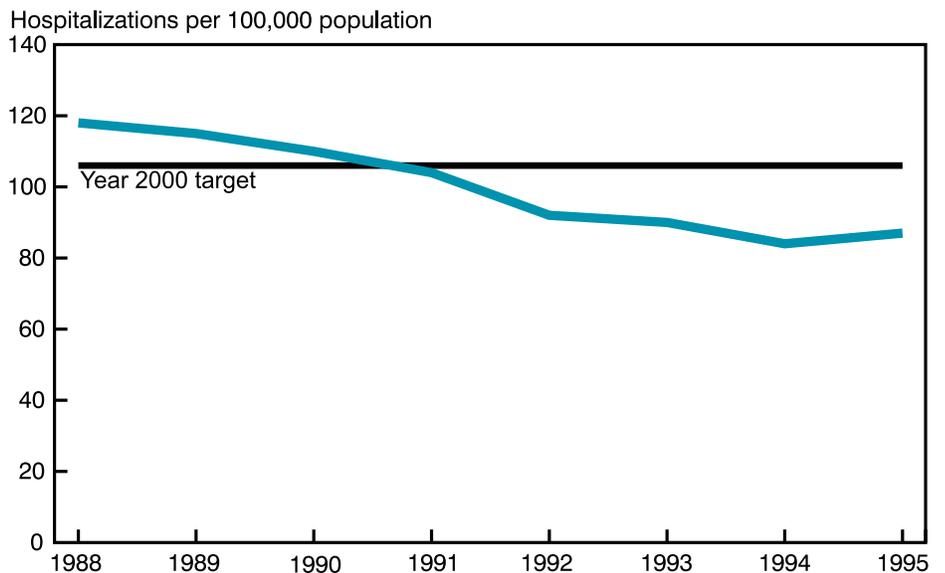
**Figure F. Children with disabilities 3–5 years of age enrolled in preschool: United States, 1991, 1993, 1995, and year 2000 target for objective 8.3**



## Nonfatal Head Injuries

After decreasing every year since the 1988 baseline, the rate of nonfatal head injuries requiring hospitalization increased among the total population between 1994 and 1995 from 84 to 87 hospitalizations per 100,000 population. Despite the recent increase, the rate remains below the target of 106.

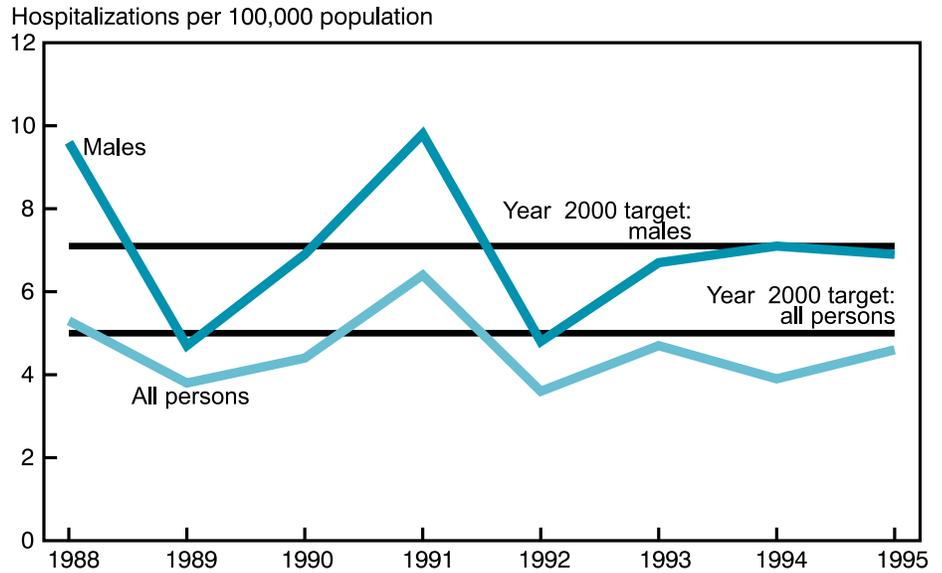
**Figure G. Incidence of nonfatal head injuries: United States, 1988–95, and year 2000 target for objective 9.9**



# Nonfatal Spinal Cord Injuries

Because it is a relatively rare event, the incidence of nonfatal spinal cord injuries requiring hospitalization has fluctuated considerably from year to year. In 1995, the rates of hospitalizations for all persons and for males were below the year 2000 targets (4.6 per 100,000 population for all persons and 6.9 for males).

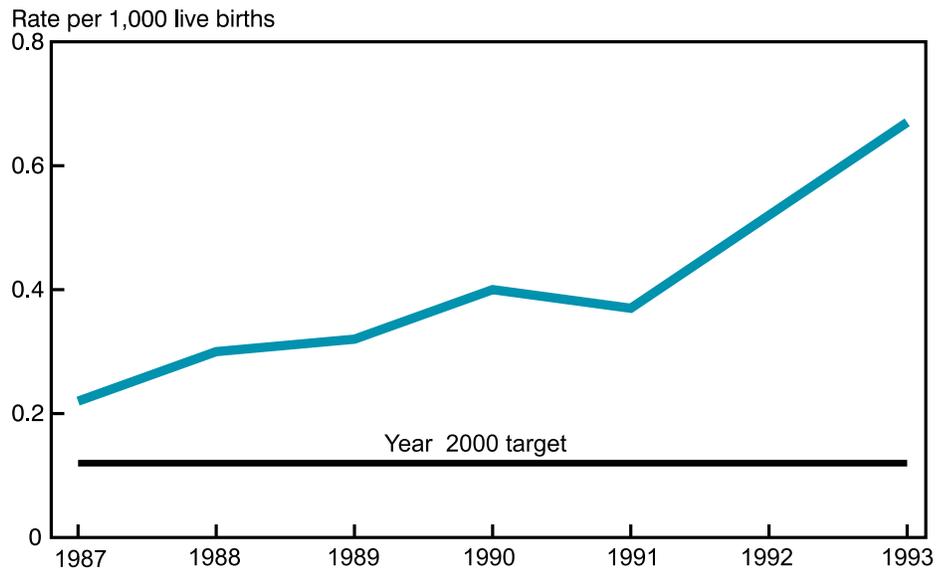
**Figure H. Incidence of nonfatal spinal cord injuries: United States, 1988–95, and year 2000 targets for objective 9.10**



# Fetal Alcohol Syndrome

The incidence of fetal alcohol syndrome (FAS) has been moving away from the year 2000 target. In 1987, the rate of fetal alcohol syndrome was 0.22 per 1,000 live births. This rate tripled to 0.67 in 1993. It is not clear whether this increase is due to improved reporting or to an actual increase in the incidence of FAS.

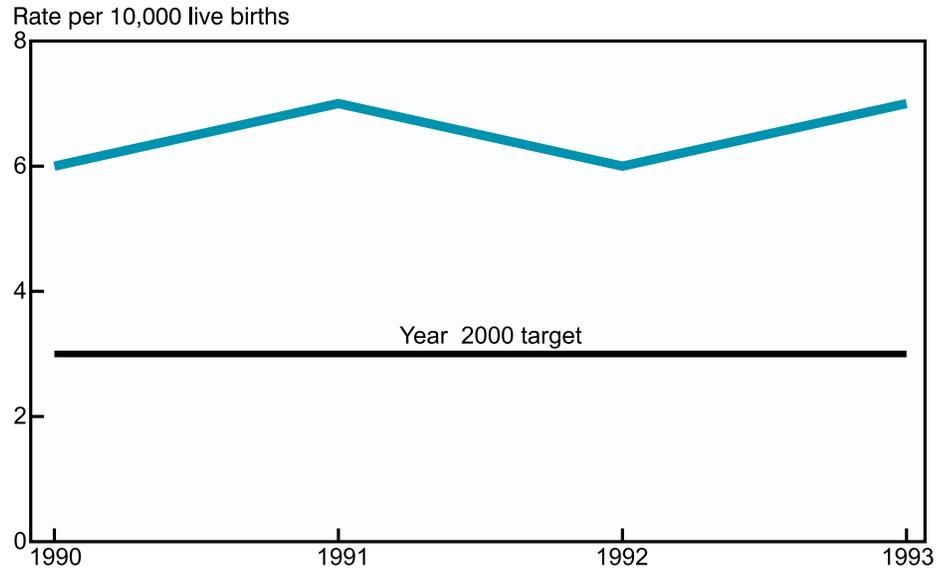
**Figure J. Incidence of fetal alcohol syndrome: United States, 1987–93, and year 2000 target for objective 14.4**



## Spina Bifida and Other Neural Tube Defects

The incidence of spina bifida and other neural tube defects has remained relatively stable from 1990–93, between 6 and 7 events per 10,000 live births.

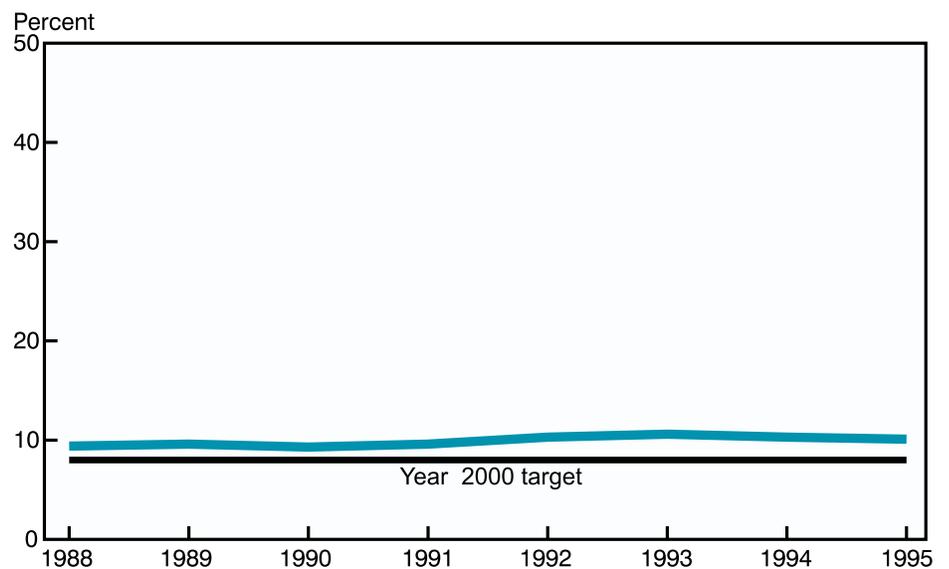
**Figure K. Incidence of spina bifida and other neural tube defects: United States, 1990–93, and year 2000 target for objective 14.17.**



## Major Activity Limitation due to Chronic Conditions

The proportion of the total population who experience a limitation in major activity due to chronic conditions increased from 9.4 percent in 1988 to 10.3 percent in 1994, moving away from the target of 8 percent. As the population ages, reversing this trend becomes an increasing challenge.

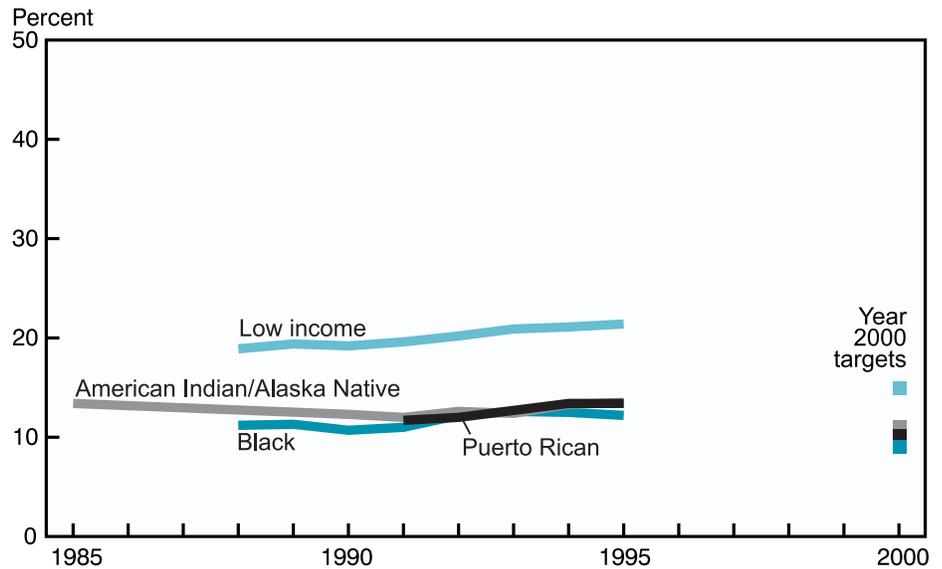
**Figure L. Proportion of people who experience a limitation in major activity due to chronic conditions: United States, 1988–95, and year 2000 target for objective 17.2.**



## Major Activity Limitation due to Chronic Conditions

The proportion of people who experience limitation in major activity due to chronic conditions increased for selected population subgroups as well as for the total population. Among the targeted subgroups, people with low income have the highest proportion (20 percent) reporting limitation in major activity.

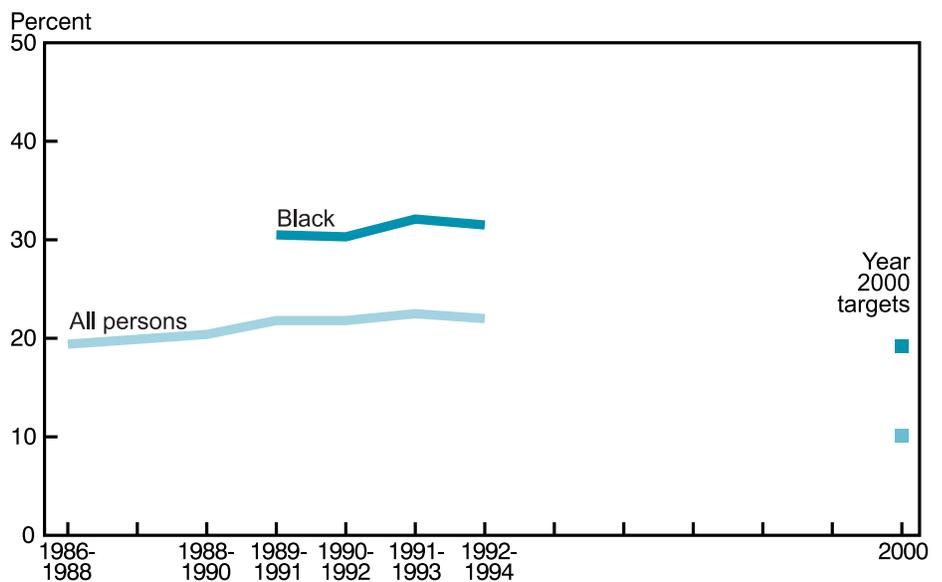
**Figure M. Proportion of selected population groups who experience a limitation in major activity due to chronic conditions: United States, 1985–95, and year 2000 targets for objective 17.2**



## Activity Limitation due to Asthma

For the total population and for blacks, there has been a slight increase in the proportion of people with asthma who experience limitation of activity from baseline figures.

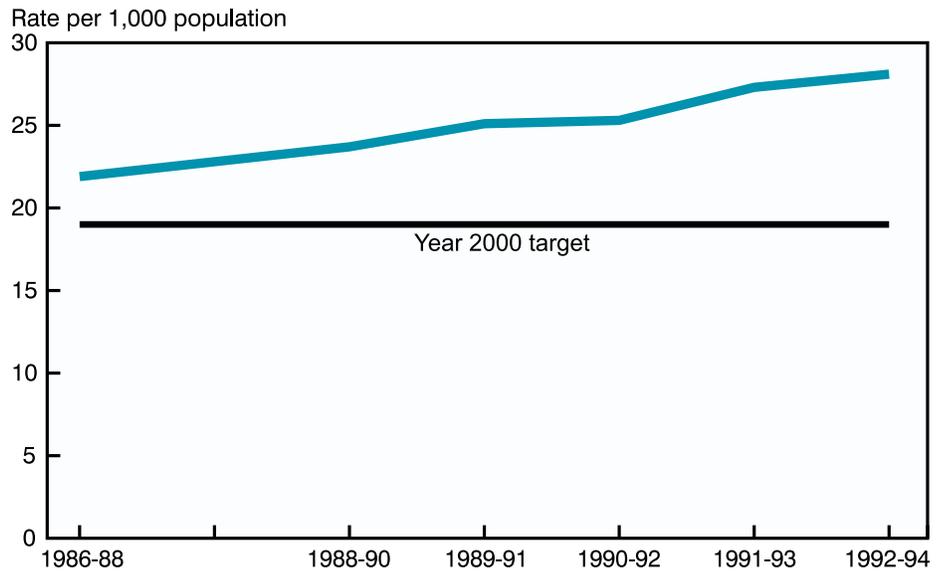
**Figure N. Proportion of people with asthma who experience activity limitation: United States, 1986–94, and year 2000 targets for objective 17.4**



## Activity Limitation due to Chronic Back Conditions

Since 1986–88, the prevalence of activity limitation due to chronic back conditions for the total population has moved away from the year 2000 target of 19 per 1,000—from 21.9 to 28.1 per 1,000 in 1992–94.

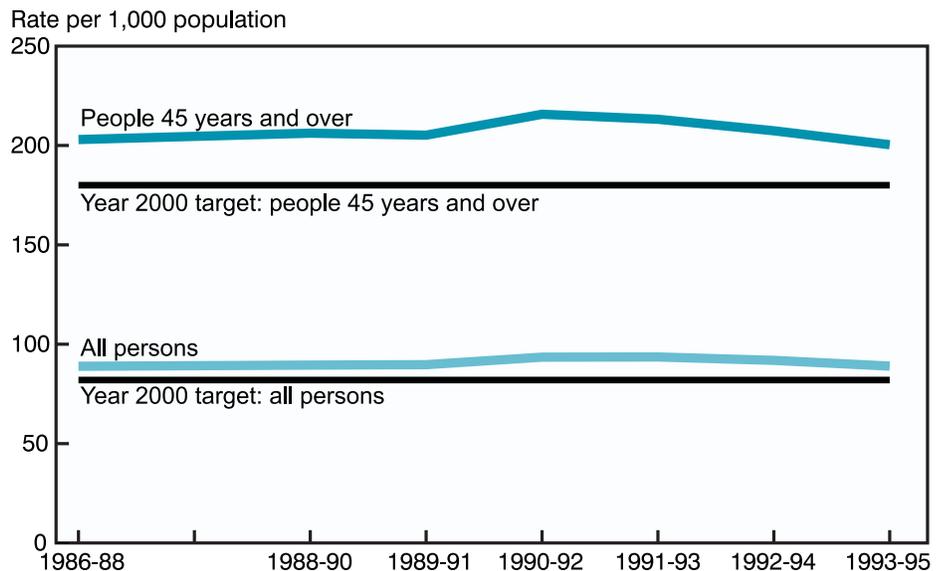
**Figure O. Prevalence of activity limitation due to chronic back conditions: United States, 1986–94, and year 2000 target for objective 17.5**



## Hearing Impairment

Between 1986–88 and 1993–95, prevalence of significant hearing impairment has remained relatively stable for all persons. For people 45 years and over, 1993–95 data show a decline from the 1986–88 baseline for the first time since monitoring began (from 203.0 to 200.4 per 1,000).

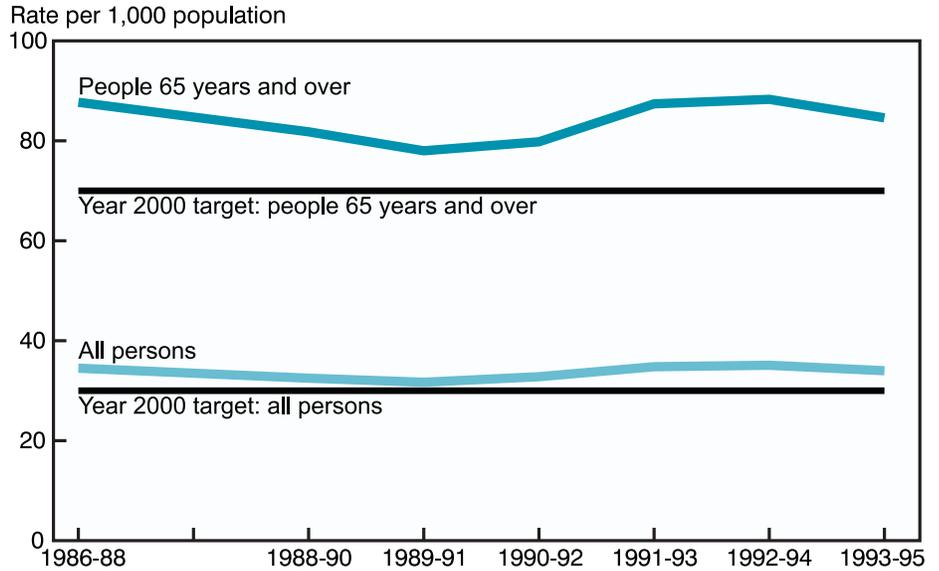
**Figure P. Prevalence of significant hearing impairment: United States, 1986–95, and year 2000 targets for objective 17.6**



## Visual Impairment

Between 1986–88 and 1993–95, prevalence of significant visual impairment remained relatively stable from 34.5 to 34.0 per 1,000 for all persons. For people 65 years and over, the prevalence rate per 1,000 has fluctuated since the 1986–88 baseline of 87.7, first declining, then increasing to a high of 88.3 in 1992–94. The rate is 84.6 in 1993–95.

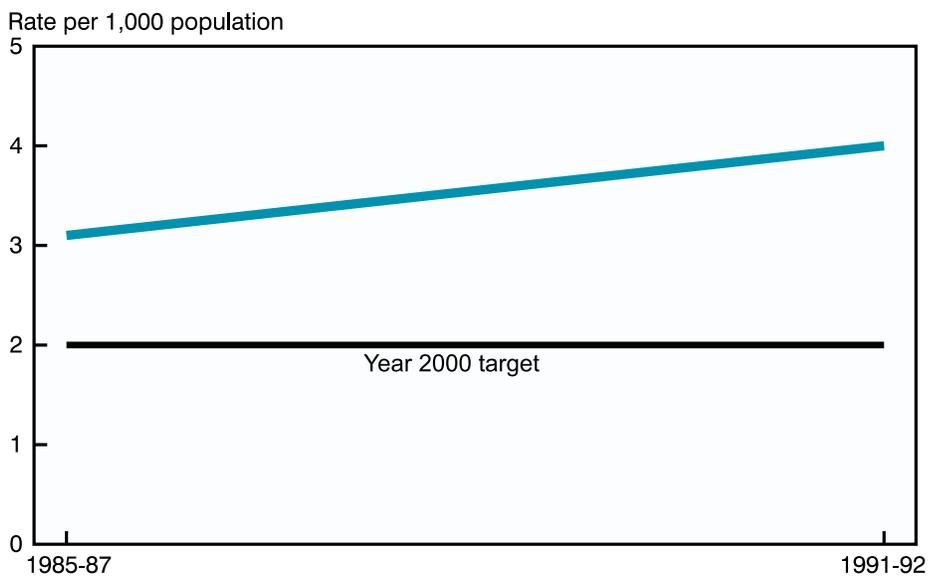
**Figure Q. Prevalence of significant visual impairment: United States, 1986–95, and year 2000 targets for objective 17.7**



## Mental Retardation

Serious mental retardation in children 10 years of age is moving away from the target. Children 10 years of age with an IQ of less than 50 increased from 3.1 to 4.0 between 1985–87 and 1991–92.

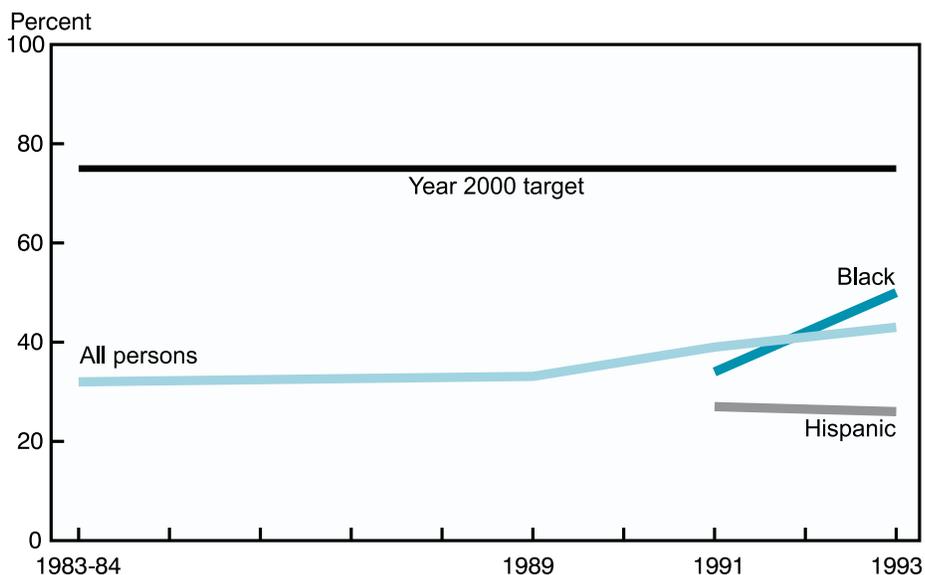
**Figure R. Prevalence of serious mental retardation in children 10 years of age: United States, 1985–87, 1991–92, and year 2000 target for objective 17.8 (11.2)**



## Formal Patient Education for People With Diabetes

Patients with diabetes who receive formal patient education has been increasing for the total population and for blacks. In 1983–84, 32 percent of people with diabetes received formal education, increasing to 43 percent in 1993. Blacks with diabetes receiving formal education increased from 34 to 50 percent from 1991–93. The Hispanic population receiving diabetes education remained at about the same level between 1991 and 1993.

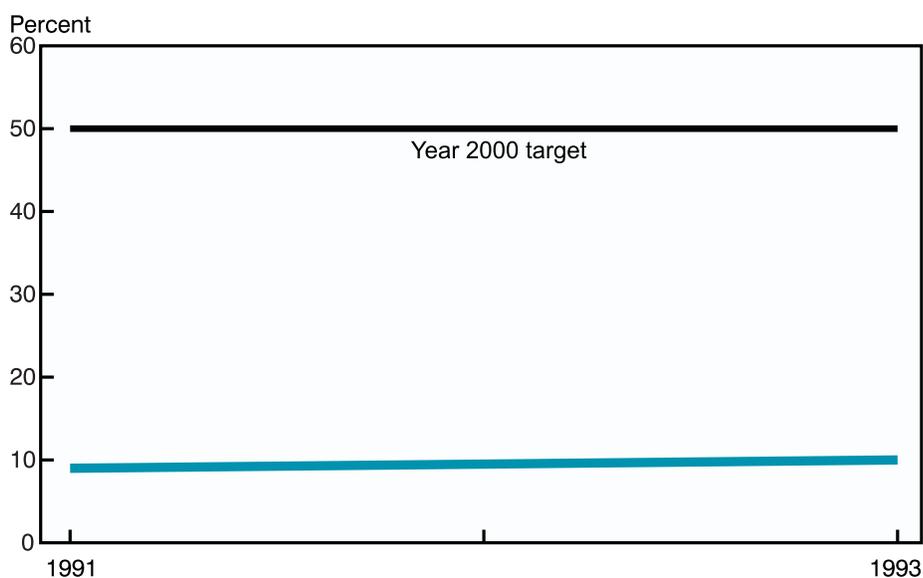
**Figure S. Proportion of people with diabetes receiving formal patient education: United States, 1983–84, 1989, 1991, 1993, and year 2000 target for objective 17.14**



## Formal Patient Education for People With Asthma

The proportion of patients with asthma who receive formal patient education has remained at the same level between 1991 and 1993 (about 10 percent), far below the year 2000 target of 50 percent. This gap presents a major challenge to providers of health care services, the public health community, and schools.

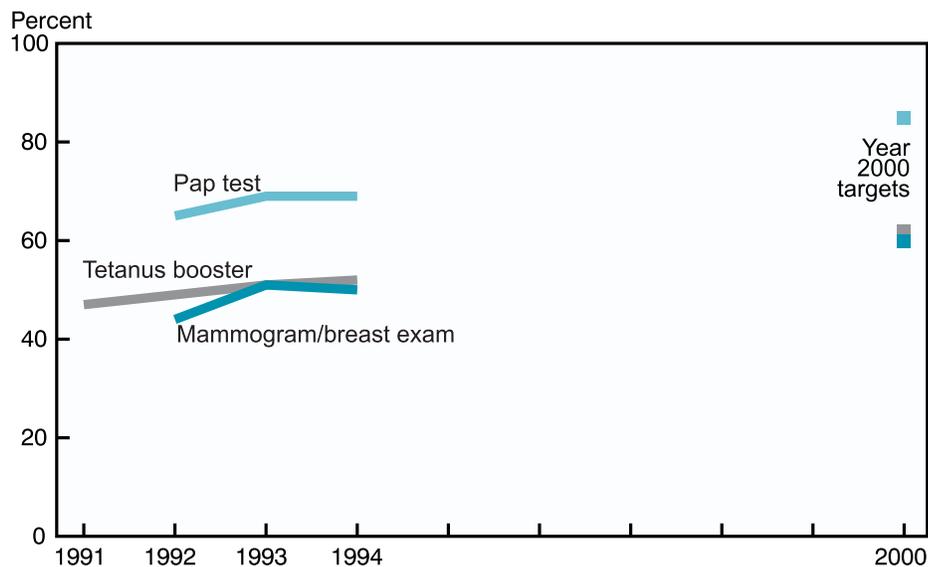
**Figure T. Proportion of people with asthma receiving formal patient education: United States, 1991, 1993, and year 2000 target for objective 17.14**



## Clinical Preventive Services

Between 1992 and 1994, receipt of recommended clinical preventive services for women with disabilities 18 years and over increased from 65 to 69 percent among women for pap tests and from 44 to 50 percent for women who had a mammogram and clinical breast exam. Among people with disabilities who received a tetanus booster, there was an increase from 47 percent in 1991 to 52 percent in 1994. Despite these increases, receipt of specific recommended services is lower for people with disabilities than for the total population.

**Figure U. Proportion of people with disabilities who have received selected recommended clinical preventive services: United States, 1991–94, and year 2000 targets for objective 21.2**



# Data Tables for Figures A–U

Figure A

	1985	1990	1991	Year 2000 targets
All persons . . . . .	24	26	24	15
People with disabilities . . . . .	35	34	30	20

Note: People with disabilities are defined as those who report themselves as either (1) unable to perform major activity, (2) limited in kind of amount of major activity, or (3) limited in other activities.  
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure B

	1985	1990	1991	1992	1993	Year 2000 targets
All persons . . . . .	23	27	27	28	29	20
People with disabilities . . . . .	36	---	35	37	38	25

--- Data not available.

Note: People with disabilities are defined as those who report themselves as either (1) unable to perform major activity, (2) limited in kind of amount of major activity, or (3) limited in other activities.  
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure C

	1984	1990	1993	Year 2000 targets
All persons . . . . .	44.2	40.6	39.2	35
People with disabilities . . . . .	53.5	54.2	54.9	40

Note: People with disabilities are defined as those who report themselves as either (1) unable to perform major activity, (2) limited in kind of amount of major activity, or (3) limited in other activities.  
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure D

	1986	1994	Year 2000 target
All persons . . . . .	15.0	34.6	30

SOURCES: Data for 1986: Substance Abuse and Mental Health Services Administration, National Institute of Mental Health, Community Support Program Client Follow-up Study. Data for 1994: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey Disability Supplement.

Figure E

	1985	1990	1993	Year 2000 targets
All persons . . . . .	11.1	12.5	14.3	20
People with disabilities . .	14.7	17.0	19.8	30

Note: People with disabilities are defined as those who report themselves as either (1) unable to perform major activity, (2) limited in kind of amount of major activity, or (3) limited in other activities.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure F

	1991	1993	1995	Year 2000 target
Children 3–5 years of age with disabilities . . . . .	56	56	63	100

SOURCE: National Center for Education Statistics, National Education Goals Panel.

Figure G

	1988	1989	1990	1991	1992	1993	1994	1995	Year 2000 target
All persons . . . . .	118	115	110	104	92	90	84	87	106

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

Figure H

	1988	1989	1990	1991	1992	1993	1994	1995	Year 2000 target
All persons . . . . .	5.3	3.8	4.4	6.4	3.6	4.7	3.9	4.6	5.0
Males . . . . .	9.6	4.7	6.9	9.8	4.8	6.7	7.1	6.9	7.1

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

Figure J

	1987	1988	1989	1990	1991	1992	1993	Year 2000 target
All persons . . . . .	0.22	0.30	0.32	0.40	0.37	0.52	0.67	0.12

SOURCE: Centers for Disease Control and Prevention, National Center for Environmental Health, Birth Defects Monitoring Program.

Figure K

	1990	1991	1992	1993	Year 2000 target
All persons . . . . .	6	7	6	7	3

SOURCE: Centers for Disease Control and Prevention, National Center for Environmental Health, Birth Defects Monitoring Program.

Figure L

	1988	1989	1990	1991	1992	1993	1994	1995	Year 2000 target
All persons . . . . .	9.4	9.6	9.3	9.6	10.3	10.6	10.3	10.1	8.0

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure M

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Year 2000 targets
Low-income people . . . . .	---	---	---	18.9	19.4	19.2	19.6	20.2	20.9	21.1	21.4	15.0
American Indian/Alaska Native . .	13.4	---	---	---	---	12.3	12.0	12.6	12.4	13.3	13.5	11.0
Black . . . . .	---	---	---	11.2	11.3	10.7	11.0	12.2	12.6	12.5	12.2	9.0
Puerto Rican . . . . .	---	---	---	---	---	---	11.7	12.0	12.7	13.4	13.4	10.0

--- Data not available.

Note: Data for American Indian/Alaska Natives and Puerto Ricans are 3-year moving averages.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure N

	1986-88	1987-89	1988-90	1989-91	1990-92	1991-93	1992-94	Year 2000 targets
All persons . . . . .	19.4	---	20.4	21.8	21.8	22.5	22.0	10.0
Black . . . . .	---	---	---	30.5	30.3	32.1	31.5	19.0

--- Data not available.

Note: Data are 3-year moving averages.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure O

	1986-88	1987-89	1988-90	1989-91	1990-92	1991-93	1992-94	Year 2000 target
All persons . . . . .	21.9	---	23.7	25.1	25.3	27.3	28.1	19.0

--- Data not available.

Note: Data are 3-year moving averages.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure P

	1986-88	1987-89	1988-90	1989-91	1990-92	1991-93	1992-94	1993-95	Year 2000 targets
All persons . . . . .	88.9	---	89.5	89.7	93.5	93.6	91.9	89.0	82.0
People 45 years and over . . .	203.0	---	206.2	205.2	215.7	213.2	207.4	200.4	180.0

--- Data not available.

Note: Data are 3-year moving averages.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure Q

	1986-88	1987-89	1988-90	1989-91	1990-92	1991-93	1992-94	1993-95	Year 2000 targets
All persons . . . . .	34.5	---	32.5	31.7	32.8	34.8	35.1	34.0	30.0
People 65 years and over . . .	87.7	---	81.8	78.0	79.8	87.4	88.3	84.6	70.0

--- Data not available.

Note: Data are 3-year moving averages.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure R

	1985-87	1991-92	Year 2000 target
Children 10 years of age . . .	3.1	4.0	2.0

SOURCE: Centers for Disease Control and Prevention, National Center for Environmental Health, Metropolitan Atlanta Developmental Disabilities Study (Metropolitan Atlanta Developmental Disabilities Surveillance Program).

Figure S

	1983-84	1989	1991	1993	Year 2000 targets
All persons . . . . .	32	33.1	39	43	75
Black . . . . .	---	---	34	50	75
Hispanic . . . . .	---	---	27	26	75

--- Data not available.

SOURCES: Data for 1983-84: Halpern M. The impact of diabetes education in Michigan. Diabetes 38(2):151A. 1989. Data for 1989-93: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure T

	1991	1993	Year 2000 target
People with asthma . . . . .	9	10	50

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

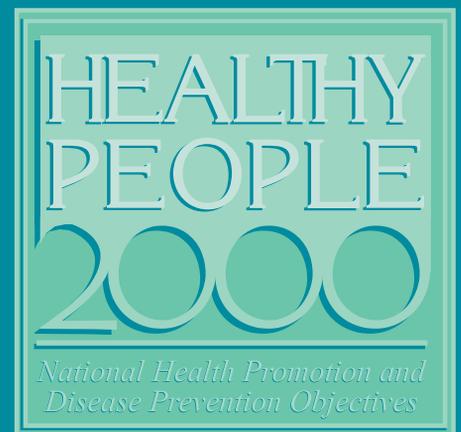
Figure U

	1991	1992	1993	1994	Year 2000 targets
Pap test . . . . .	---	65.0	69.0	69.0	85.0
Tetanus booster . . . . .	47.0	---	51.0	52.0	62.0
Mammogram/breast exam. . .	---	44.0	51.0	50.0	60.0

--- Data not available.

Note: People with disabilities are defined as those who report themselves as either (1) unable to perform major activity, (2) limited in kind of amount of major activity, or (3) limited in other activities.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.



# *Priority Areas*

# Priority Area 1 Physical Activity and Fitness

## Background

Physical activity has been demonstrated to have protective effects for several chronic diseases, including coronary heart disease, hypertension, noninsulin-dependent diabetes mellitus, osteoporosis, colon cancer, and depression and anxiety (1). On average, physically active people outlive those who are inactive (2). Regular physical activity can also help to maintain the functional independence of older adults and enhance the quality of life for people of all ages (3).

## Data Summary

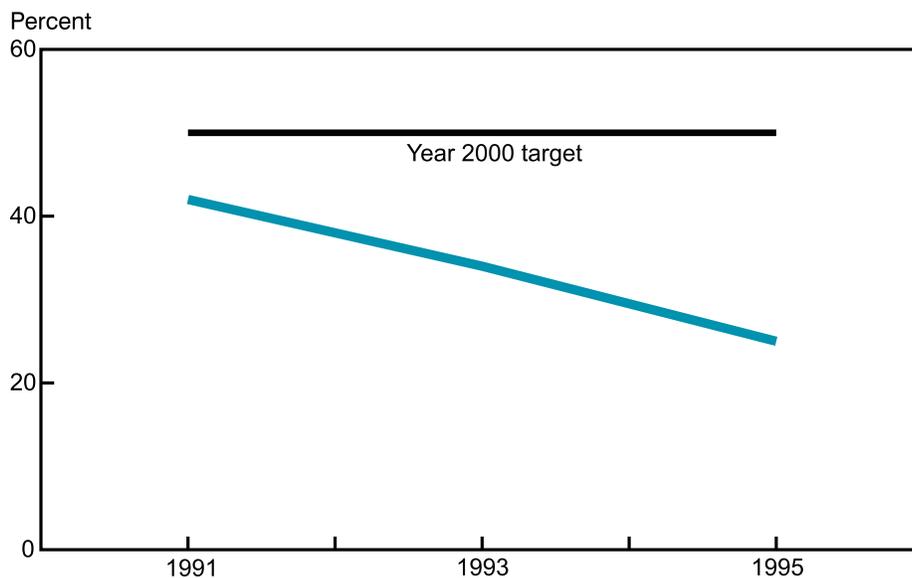
### Highlights

Coronary heart disease death rates (objective 1.1) have declined for the total population. Overweight prevalence (1.2) has increased, moving further away from the target for the total population and for all special population subobjectives. Data from 1988–94 for adolescents and adults indicate that the prevalence of overweight has increased substantially since the 1976–80 baseline. Physical activity (1.3, 1.4, 1.6) has been increasing. However, participation in daily school physical education (1.8) has been decreasing for students in grades 9–12 (see figure 2). The proportion of worksites offering employer-sponsored physical activity and fitness programs (1.10) has increased substantially, surpassing the year 2000 targets.

### Summary of Progress

Of the 13 physical activity and fitness objectives, 1 has surpassed the target (1.10), 4 show progress toward the year 2000 targets (1.1, 1.3, 1.4, and 1.6), while 4 are moving away from the targets (1.2, 1.7, 1.8, and 1.9). Objectives 1.5 and 1.13 (noninstitutionalized population only) show no change. Data to update progress for two objectives (1.11 and 1.12) are not yet available. For objectives 1.3–1.5, which target the physical activity level of adults and children, data are not yet available for ages 6–17 years.

**Figure 2. Proportion of students in grades 9–12 who participate in daily school physical education: United States, 1991, 1993, 1995, and year 2000 target for objective 1.8**



	1991	1993	1995	Year 2000 target
Students in grades 9–12 . . . . .	42	34	25	50

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey.

## Data Issues

### Definitions

Physical activity and fitness as a recognized risk factor for health outcomes is a relatively new concept, contributing to present difficulties in tracking some objectives. Calculations vary from simple counts (for example, weight-training three or more times a week) to complex formulas (for example, calculating average kilocalories expended per kilogram per day) (4). The intent of objective 1.3 (light-to-moderate physical activity) is to generate calorie-burning activity from a health standpoint by emphasizing the importance of regular physical activity that can be sustained throughout the lifespan. The sum of all physical activities performed at least 30 minutes per occasion five or more or seven or more times a week regardless of the intensity has been defined as measuring this objective. To measure the proportion of adults performing vigorous physical activity (1.4), the predicted maximum cardiorespiratory capacity was estimated using age- and sex-based

regression equations and then multiplying by 50 percent (see Note with the text of objective 1.4). Then all the activities that were performed for at least 20 minutes that had a kilocalorie value that was equal to or greater than that 50 percent level were counted (5,6). The estimated number of people who exercise vigorously were respondents who performed these activities three or more times per week.

Overweight (1.2) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see Note with the text of objective 1.2). BMI cutoff points for adults are 27.8 kilograms per meter squared for males, and 27.3 kilograms per meter squared for females. Current international research appears to indicate that a lower BMI of 25 kilograms per meter squared may be more clinically relevant to increased risk of cardiovascular disease (7,8).

The data on inquiry for objective 1.12 refer to the proportion of health

care providers who routinely provided service to 81–100 percent of their clients. Data on formulation of an exercise plan represent the proportion of providers who routinely provide this service to 81–100 percent of their clients who need this intervention. The basis for the inquiry or formulation may be independent of assessment made by the clinician. Because inquiry and counseling services are not reimbursable services, documenting their provision has proven to be difficult.

### Comparability of Data Sources

Overweight (1.2) is being tracked with two data sources. The primary data source is the National Health and Nutrition Examination Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–94 updates; these data are derived from measured height and weight. The second data source is the National Health Interview Survey (NHIS). This survey provides interim estimates shown in an earlier publication (9), updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities. NHIS estimates are based on self-reported heights and weights and are not comparable with the actual measured data from NHANES: prevalence estimates of overweight from self-reported height and weight are lower. Trends from the NHIS self-report measures, like those from NHANES, show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

Objective 1.3 (light-to-moderate physical activity) is being tracked with the NHIS. Because the questionnaire changed in 1991, databases for all 3 years of data (1985, 1990, and 1991) were made as similar as possible before calculating estimates. This process involved limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific activities listed to those asked in all 3 years.

The 1985 and 1992 data for objective 1.10 are from the National Survey of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Worksites were sampled, because different worksites within the same company could have different sets of health promotion activities. Both active (for

example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update comes from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not include passive methods of health promotion (10,11).

Data for objective 1.12, clinician counseling about physical activity, were obtained from two different surveys, making statements about trends problematic. The 1988 baseline of 30 percent from the American College of Physicians (ACP) survey was a random stratified sample of ACP members drawn from 21 geographic regions yielding an initial sample of 1,251 internists. The sampling frame for internists in the 1992 Primary Care Provider Surveys (PCPS) also contained a random stratified sample of ACP members, but was drawn from four geographic regions with oversampling of female members, yielding an initial sample of 1,200 internists. Additional provider groups sampled in the 1992 PCPS included pediatricians, nurse practitioners, obstetricians/gynecologists, and family physicians. In 1997 the PCPS is being fielded by the American College of Preventive Medicine using American Medical Association files.

### Proxy Measures

Regular performance of physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility (1.6) generally requires participation in a variety of physical activities as not all activities will satisfy all three factors. However, scoring parameters for strength, endurance, and flexibility are not yet available. Until research into these areas can provide such measures for adults, this objective will be tracked using data on an activity that increases muscular strength (weightlifting) and an activity that increases flexibility (stretching) from the NHIS. The 1991, 1993, and 1995 data shown for students in grades 9–12 are based on self-reported participation in stretching exercises or strengthening exercises that were done 4 or more days per week from the Youth Risk Behavior Survey (YRBS).

Objective 1.7 is to increase to at least 50 percent the proportion of overweight people who use sound dietary practices combined with regular physical activity to attain appropriate

body weight. Respondents who reported they were overweight and were currently trying to lose weight or control their weight by eating fewer calories and exercising more were included in this objective. However, an assessment of the quality of dietary practices has not yet been coupled with a measure of regular physical activity. The 1985 questionnaire asked respondents specifically if they were eating fewer calories to lose weight and if they were increasing their physical activity to lose weight. In 1991 and 1993, eating fewer calories and exercising more were among a list of 10 possible methods of losing weight in response to the question, “Are you currently doing any of these things to control your weight?” Respondents were asked this question if they reported they were trying to lose weight or stay about the same.

Objective 1.9 targets time spent in school physical education classes devoted to activities that may be readily carried into adulthood because their performance requires only one or two people (such as swimming, bicycling, jogging, and racquet sports). The proxy measure for this objective is the percent of class time spent in actual physical activity. The 1983 baseline data show the percent of physical education class time spent being physically active for all students. The YRBS data for students in grades 9–12 show the percent who exercised in physical education class 21 or more minutes 3–5 times a week and 30 or more minutes 1 or more times per week. The 1995 data from the School Health Policies and Programs Study (SHPPS) show the proportion of physical education teachers using class time to involve students in actual physical activities.

### Data Availability

Data to update the physical activity objectives (1.3, 1.4, and 1.5) will be available from the 1995 NHIS.

The 1984–85 baseline figures for 1.13 were derived by combining estimates for the noninstitutionalized population from the NHIS with data for the nursing home population from the National Nursing Home Survey (NNHS). At the present time, only data for the noninstitutionalized population are available to update progress. Update data for the total U.S. population will be available by combining data from the 1994 NHIS Second Supplement on Aging with data from the 1995 NNHS.

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**Table 1. Physical activity and fitness objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>1.1*</b>	<b>Coronary heart disease deaths (age adjusted per 100,000)</b>	1987	135	122	118	114	114	110	108	100
	a. Blacks	1987	168	158	156	151	154	147	147	115
<b>1.2*</b>	<b>Overweight prevalence</b>									
	(Based on measured height and weight unless otherwise indicated)									
	Adults 20–74 years	1976–80	26%	---	---	---	---	<sup>1,2</sup> 35%	---	20%
	Males	1976–80	24%	---	---	---	---	<sup>1,3</sup> 34%	---	20%
	Females	1976–80	27%	---	---	---	---	<sup>1,4</sup> 37%	---	20%
	Adolescents 12–19 years	1976–80	15%	---	---	---	---	<sup>5</sup> 24%	---	15%
	a. Low-income females 20–74 years	1976–80	37%	---	<sup>6</sup> 47%	---	---	---	---	25%
	b. Black females 20–74 years	1976–80	44%	---	---	---	---	<sup>1,7</sup> 52%	---	30%
	c. Hispanic females 20–74 years	...	---	---	---	---	---	---	---	25%
	Hispanic females 20 years and over (self-reported) <sup>8</sup>	...	---	33%	32%	32%	33%	---	---	...
	Mexican-American females 20–74 years	1982–84	39%	---	---	---	---	150%	---	...
	Cuban females 20–74 years	1982–84	34%	---	---	---	---	---	---	...
	Puerto Rican females 20–74 years	1982–84	37%	---	---	---	---	---	---	...
	d. American Indians/Alaska Natives 20 years and over	1984–88	29–75%	---	<sup>8</sup> 40%	<sup>8</sup> 36%	<sup>8</sup> 48%	---	---	30%
	e. People with disabilities 20 years and over (self-reported) <sup>8</sup>	1985	36%	---	38%	37%	38%	---	---	25%
	f. Females with high blood pressure 20–74 years	1976–80	50%	---	---	---	---	---	---	41%
	g. Males with high blood pressure 20–74 years	1976–80	39%	---	---	---	---	---	---	35%
	h. Mexican-American males 20–74 years	1982–84	30%	---	---	---	---	<sup>1,9</sup> 37%	---	25%
<b>1.3*</b>	<b>Moderate physical activity</b>									
	People 6 years and over	...	---	---	---	---	---	---	---	30%
	People 18–74 years									
	5 or more times per week	1985	22%	23%	24%	---	---	---	---	30%
	7 or more times per week	1985	16%	16%	17%	---	---	---	---	30%
	a. Hispanics 18 years and over									
	5 or more times per week	1991	20%	...	...	---	---	---	---	25%
<b>1.4</b>	<b>Vigorous physical activity</b>									
	Children and adolescents 6–17 years	...	---	---	---	---	---	---	---	75%
	Children and adolescents 10–17 years	1984	<sup>a</sup> 59%	---	---	---	---	---	---	75%
	Students in grades 9–12	...	---	37%	64%	---	66%	---	64%	75%
	People 18 years and over	1985	12%	---	16%	---	---	---	---	20%
	a. Lower-income people 18 years and over	1985	7%	---	15%	---	---	---	---	12%
	b. Blacks 18 years and over	1991	<sup>a</sup> 12.8%	...	...	---	---	---	---	17%
	c. Hispanics 18 years and over	1991	<sup>a</sup> 13.6%	...	...	---	---	---	---	17%
<b>1.5</b>	<b>Sedentary lifestyle</b>									
	People 6 years and over	...	---	---	---	---	---	---	---	15%
	People 18 years and over	1985	24%	26%	24%	---	---	---	---	15%
	a. People 65 years and over	1985	43%	---	29%	---	---	---	---	22%
	b. People with disabilities	1985	35%	34%	30%	---	---	---	---	20%
	c. Lower-income people	1985	32%	33%	32%	---	---	---	---	17%
	d. Blacks 18 years and over	1991	28%	...	...	---	---	---	---	20%
	e. Hispanics 18 years and over	1991	34%	...	...	---	---	---	---	25%
	f. American Indians/Alaska Natives 18 years and over	1991	29%	...	...	---	---	---	---	21%

**Table 1. Physical activity and fitness objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>1.6</b>	<b>Muscular strength, endurance, and flexibility</b>									
	People 6 years and over . . . . .	...	---	---	---	---	---	---	---	40%
	Students in grades 9–12									
	Stretching 4 or more times per week . . . . .	...	---	---	43%	---	55%	---	53%	...
	Strengthening 4 or more times per week . . . . .	...	---	---	37%	---	52%	---	50%	...
	People 18–64 years									
	Weightlifting . . . . .	...	---	11%	16%	---	---	---	---	...
	Stretching . . . . .	...	---	---	27%	---	---	---	---	...
<b>1.7*</b>	<b>Sound weight loss practices among overweight people 12 years and over . . . . .</b>									50%
	Overweight males 18 years and over . . . . .	1985	25%	22%	19%	---	17%	---	---	50%
	Overweight females 18 years and over . . . . .	1985	30%	29%	22%	---	19%	---	---	50%
	a. Overweight Hispanic males 18 years and over . . . . .	1991	15%	...	...	---	11%	---	---	24%
	b. Overweight Hispanic females 18 years and over . . . . .	1991	13%	...	...	---	16%	---	---	22%
<b>1.8</b>	<b>Daily school physical education</b>									
	Students in grades 1–12 . . . . .	1984–86	36%	---	---	---	---	---	---	50%
	Students in grades 9–12 . . . . .	...	...	---	42%	---	34%	---	25%	...
	Students in middle/junior high schools									
	For 1 year . . . . .	...	---	---	---	---	---	12%	---	...
	For 2 or more years . . . . .	...	---	---	---	---	---	30%	---	...
	Students in senior high schools									
	For 1 year . . . . .	...	---	---	---	---	---	29%	---	...
	For 2 years . . . . .	...	---	---	---	---	---	18%	---	...
	For 3 years . . . . .	...	---	---	---	---	---	9%	---	...
<b>1.9</b>	<b>Active physical education class time</b>									
	All students . . . . .	1983	27%	---	---	---	---	---	---	50%
	Students in grades 9–12									
	21 or more minutes, 3–5 times per week . . . . .	...	---	---	37%	---	35%	---	33%	...
	30 or more minutes, 1 or more times per week . . . . .	...	---	---	24.2%	---	25%	---	22%	...
	Physical education teachers devoting class time to:									
	Jogging . . . . .	...	---	---	---	---	---	45%	---	...
	Tennis . . . . .	...	---	---	---	---	---	30%	---	...
	Aerobic dance . . . . .	...	---	---	---	---	---	29%	---	...
	Walking . . . . .	...	---	---	---	---	---	14%	---	...
	Swimming . . . . .	...	---	---	---	---	---	13%	---	...
<b>1.10</b>	<b>Worksite fitness programs</b>									
	50–99 employees . . . . .	1985	14%	---	---	33%	---	---	---	20%
	100–249 employees . . . . .	1985	23%	---	---	47%	---	---	---	35%
	250–749 employees . . . . .	1985	32%	---	---	66%	---	---	---	50%
	750 and more employees . . . . .	1985	54%	---	---	83%	---	---	---	80%
	Group classes, workshops, or lectures . . . . .	...	---	---	---	21%	---	---	19%	...

**Table 1. Physical activity and fitness objective status—Con.**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>1.11</b>	<b>Community fitness facilities</b>									
	Hiking, biking, and fitness trail miles . . . . .	1986	1 per 71,000 people	---	---	---	---	---	---	1 per 10,000 people
	Public swimming pools . . . . .	1986	1 per 53,000 people	---	---	---	---	---	---	1 per 25,000 people
	Acres of park and recreation open space . . . . .	1986	1.8 per 1,000 people	---	---	---	---	---	---	4 per 1,000 people
<b>1.12</b>	<b>Clinician counseling about physical activity</b>									
	Percent of sedentary patients . . . . .	1988	30%	---	---	---	---	---	---	50%
	Percent of clinicians routinely providing services to 81–100% of patients Inquiry about exercise habits									
	Pediatricians . . . . .	...	---	---	---	16%	---	---	---	50%
	Nurse practitioners . . . . .	...	---	---	---	30%	---	---	---	50%
	Obstetricians/gynecologists . . . . .	...	---	---	---	14%	---	---	---	50%
	Internists . . . . .	...	---	---	---	40%	---	---	---	50%
	Family physicians . . . . .	...	---	---	---	19%	---	---	---	50%
	Formulation of an exercise plan									
	Pediatricians . . . . .	...	---	---	---	16%	---	---	---	50%
	Nurse practitioners . . . . .	...	---	---	---	14%	---	---	---	50%
	Obstetricians/gynecologists . . . . .	...	---	---	---	13%	---	---	---	50%
	Internists . . . . .	...	---	---	---	25%	---	---	---	50%
	Family physicians . . . . .	...	---	---	---	18%	---	---	---	50%
<b>1.13*</b>	<b>People with self-care problems (per 1,000)</b>									
	People 65 years and over . . . . .	1984–85	111	---	---	---	---	---	---	90
	Noninstitutionalized population . . . . .	...	---	<sup>10</sup> 77	<sup>11</sup> 77	---	---	---	---	...
	a. People 85 years and over . . . . .	1984–85	371	---	---	---	---	---	---	325
	Noninstitutionalized population . . . . .	...	---	<sup>10</sup> 223	<sup>11</sup> 204	---	---	---	---	...
	b. Blacks 65 years and over . . . . .	1984–85	<sup>a</sup> 132	---	---	---	---	---	---	98
	Noninstitutionalized population . . . . .	...	---	<sup>10</sup> 104	<sup>11</sup> 112	---	---	---	---	...

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1988–94 data, 20 years and over.

<sup>2</sup>1988–91 data show 34% for 20–74 years, 33% for 20 years and over.

<sup>3</sup>1988–91 data show 32% for 20–74 years, 31% for 20 years and over.

<sup>4</sup>1988–91 data show 36% for 20–74 years, 35% for 20 years and over.

<sup>5</sup>1988–94 data. 1988–91 data show 21% for ages 12–19 years.

<sup>6</sup>1988–91 data.

<sup>7</sup>1988–91 data show 49% for 20–74 years, 49% for 20 years and over.

<sup>8</sup>Estimate derived from self-reported height and weight.

<sup>9</sup>1988–91 data show 36% for 20–74 years, 39% for 20 years and over.

<sup>10</sup>1984 data.

<sup>11</sup>1986 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
1.1*, 1.1a	National Vital Statistics System, CDC, NCHS.
1.2*, 1.2a, b, f, g	National Health and Nutrition Examination Survey, CDC, NCHS.
1.2c, h	Data for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican-Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican-Americans: National Health and Nutrition Examination Survey, CDC, NCHS.
1.2d	Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
1.2e	National Health Interview Survey, CDC, NCHS.
1.3*, 1.3a	National Health Interview Survey, CDC, NCHS.
1.4	Baseline: For ages 10–17, National Children and Youth Fitness Study I, OASH, ODPHP. 1990 updates for grades 9–12: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1993–94 updates for grades 9–1: Youth Risk Behavior Survey, CDC, NCCDPHP. Baseline and updates for ages 18 and over: National Health Interview Survey, CDC, NCHS.
1.4a–c	National Health Interview Survey, CDC, NCHS.
1.5, 1.5a–f	National Health Interview Survey, CDC, NCHS.
1.6	For students in grades 9–12: Youth Risk Behavior Survey, CDC, NCCDPHP. For people 18–64: National Health Interview Survey, CDC, NCHS.
1.7*, 1.7a–b	National Health Interview Survey, CDC, NCHS.
1.8	Baseline for grades 5–12: National Children and Youth Fitness Study I, OASH, ODPHP. Baseline for grades 1–4: National Children and Youth Fitness Study II, OASH, ODPHP. Baseline and updates for grades 9–12: Youth Risk Behavior Survey, CDC, NCCDPHP. For students in middle/junior and senior high schools: School Health Policies and Programs Study, CDC, NCCDPHP.
1.9	Baseline for all students: Siedentop D. Developing Teaching Skills in Physical Education. Palo Alto, CA, Mayfield. 1983. Updates for grades 9–12: Youth Risk Behavior Survey, CDC, NCCDPHP. For physical education teachers: School Health Policies and Programs Study, CDC, NCCDPHP.
1.10	National Survey of Worksite Health Promotion Activities, OASH, ODPHP. 1995 Update: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
1.11	Baseline: McDonald BL and Cordell HK. Local Opportunities for Americans: Final Report of the Municipal and County Park and Recreation Study, Alexandria, VA: National Recreation and Park Association. 1988.
1.12	1988 Baseline: American College of Physicians Membership Survey of Prevention Practices in Adult Medicine. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.
1.13*, 1.13a	Baseline: National Health Interview Survey, CDC, NCHS; National Nursing Home Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.
1.13b	National Health Interview Survey, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Physical Activity and Fitness Objectives

**1.1\*:** Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 2.1, 3.1, and 15.1

**1.1a\*:** Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000.

Duplicate objectives: 2.1a, 3.1a, and 15.1a

**1.2\*:** Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the modified age- and sex-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II). BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 2.3, 15.10, and 17.12

**1.2a\*:** Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 2.3a, 15.10a, and 17.12a

**1.2b\*:** Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 2.3b, 15.10b, and 17.12b

**1.2c\*:** Reduce overweight to a prevalence of no more than

25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 2.3c, 15.10c, and 17.12c

**1.2d\*:** Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 2.3d, 15.10d, and 17.12d

**1.2e\*:** Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 2.3e, 15.10e, and 17.12e

**1.2f\*:** Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 2.3f, 15.10f, and 17.12f

**1.2g\*:** Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 2.3g, 15.10g, and 17.12g

**1.2h\*:** Reduce overweight to a prevalence of no more than 25 percent among Mexican-American men.

Duplicate objectives: 2.3h, 15.10h, and 17.12h

**1.3\*:** Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.

*NOTE: Light to moderate physical activity is activity that requires sustained, rhythmic muscular movements and is at least equivalent to sustained walking. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may include walking, swimming, cycling, and dancing; gardening and yardwork; various domestic and occupational activities; and games and other childhood pursuits.*

Duplicate objectives: 15.11 and 17.13

**1.3a\*:** Increase to at least 25 percent the proportion of Hispanics aged 18 and older who

engage in light to moderate physical activity for at least 30 minutes per day 5 or more times per week.

Duplicate objectives: 15.11a and 17.13a

**1.4:** Increase to at least 20 percent the proportion of people aged 18 and older and to at least 75 percent the proportion of children and adolescents aged 6–17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

*NOTE: Vigorous physical activities are rhythmic, repetitive physical activities that use large muscle groups at 60 percent or more of maximum heart rate for age. An exercise heart rate of 60 percent of maximum heart rate for age is about 50 percent of maximal cardiorespiratory capacity and is sufficient for cardiorespiratory conditioning. Maximum heart rate equals roughly 220 beats per minute minus age.*

**1.4a:** Increase to at least 12 percent the proportion of lower-income people aged 18 and older (annual family income less than \$20,000) who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

**1.4b:** Increase to at least 17 percent the proportion of blacks aged 18 and older who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

**1.4c:** Increase to at least 17 percent the proportion of Hispanics aged 18 and older who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

**1.5:** Reduce to no more than 15 percent the proportion of people aged 6 and older who engage in no leisure-time physical activity.

*NOTE: For this objective, people with disabilities are people who report any limitation in activity due to chronic conditions.*

**1.5a:** Reduce to no more than 22 percent the proportion of people aged 65 and older who engage in no leisure-time physical activity.

**1.5b:** Reduce to no more than 20 percent the proportion of people with disabilities who engage in no leisure-time physical activity.

**1.5c:** Reduce to no more than 17 percent the proportion of lower-income people aged 18 and older (annual family income less than \$20,000) who engage in no leisure-time physical activity.

**1.5d:** Reduce to no more than 20 percent the proportion of blacks aged 18 and older who engage in no leisure-time physical activity.

**1.5e:** Reduce to no more than 25 percent the proportion of Hispanics aged 18 and older who engage in no leisure-time physical activity.

**1.5f:** Reduce to no more than 21 percent the proportion of American Indians/Alaska Natives aged 18 and older who engage in no leisure-time physical activity.

**1.6:** Increase to at least 40 percent the proportion of people aged 6 and older who regularly perform physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility.

**1.7\*:** Increase to at least 50 percent the proportion of overweight people aged 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 2.7

**1.7a\*:** Increase to at least 24 percent the proportion of overweight Hispanic males aged 18 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 2.7a

**1.7b\*:** Increase to at least 22 percent the proportion of overweight Hispanic females aged 18 and older who have adopted

sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 2.7b

**1.8:** Increase to at least 50 percent the proportion of children and adolescents in 1st–12th grade who participate in daily school physical education.

**1.9:** Increase to at least 50 percent the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities.

*NOTE: Lifetime activities are activities that may be readily carried into adulthood because they generally need only one or two people. Examples include swimming, bicycling, jogging, and racquet sports. Also counted as lifetime activities are vigorous social activities such as dancing. Competitive group sports and activities typically played only by young children such as group games are excluded.*

**1.10:** Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs as follows:

Worksites with—	2000 target (percent)
50–99 employees	20
100–249 employees	35
250–749 employees	50
750 or more employees	80

**1.11:** Increase community availability and accessibility of physical activity and fitness facilities as follows:

Hiking, biking, and fitness trail miles: 1 per 10,000 people

Public swimming pools: 1 per 25,000 people

Acres of park and recreation open space: 4 per 1,000 people (250 people per managed acre)

**1.12:** Increase to at least 50 percent the proportion of primary care providers who routinely assess and counsel their patients regarding the frequency, duration, type, and intensity of each patient's physical activity practices.

**1.13\*:** Reduce to no more than 90 per 1,000 people the proportion of all people aged 65 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

*NOTE: Personal care activities are bathing, dressing, using the toilet, getting in and out of bed or chair, and eating.*

Duplicate objective: 17.3 and age-related objective for people aged 65 and older

**1.13a\*:** Reduce to no more than 325 per 1,000 people the proportion of all people aged 85 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

Duplicate objective: 17.3a

**1.13b\*:** Reduce to no more than 98 per 1,000 people the proportion of blacks aged 65 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

Duplicate objective: 17.3b

\*Duplicate objective.

## Priority Area 2 Nutrition

### Background

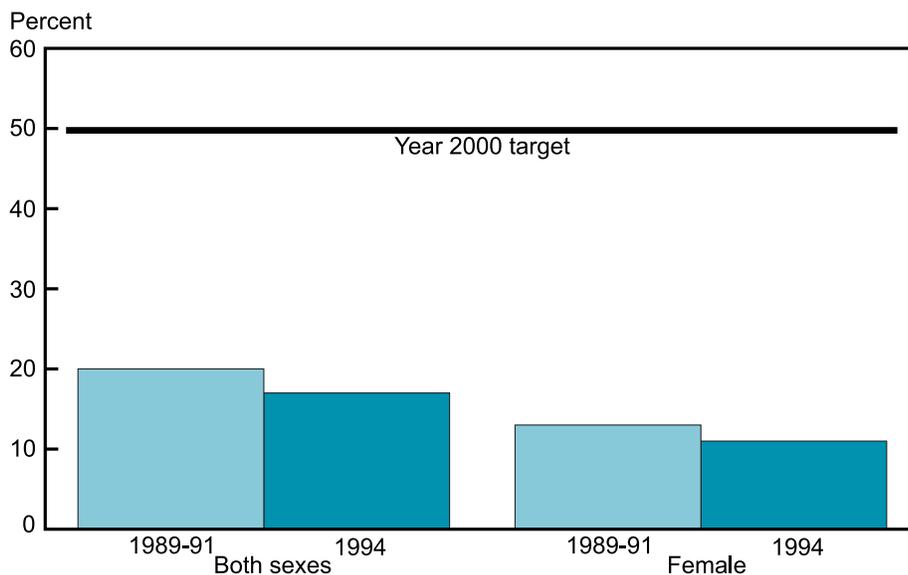
Dietary factors contribute substantially to preventable illness and premature death in the United States. For the majority of adults who do not smoke and do not drink excessively, what they eat is the most significant controllable risk factor affecting their long-term health (1). Five major causes of death are associated with dietary factors: coronary heart disease, some types of cancer, stroke, noninsulin-dependent diabetes mellitus, and coronary artery disease (2). In general, once-prevalent nutrient deficiencies have been replaced by excesses and imbalances of other food components in the diet. Undernutrition still occurs in some groups of people, however, including those who are isolated or economically deprived.

### Data Summary

#### Highlights

There has been improvement in a number of nutrition objectives. Coronary heart disease (2.1), cancer (2.2), and stroke (2.22) mortality continue to decline for the total population. The age-adjusted death rate for colorectal cancer (2.23) surpassed the year 2000 target. The average dietary fat intake among people age 2 years and over (expressed as percent of calories from fat) has decreased (2.5) and the proportion of the population who meets the dietary guidelines for fat has increased. The average number of servings of fruits and vegetables and grain products consumed by the population met or surpassed the year 2000 target and the proportion of the population that has met the dietary guidelines has increased, with grain products reaching the target (2.6). Iron deficiency prevalence (2.10) has decreased for low-income children from 1976–80 to 1988–94 but has remained the same for all children. More processed and raw foods have useful and informative nutrition labeling (2.14). Additionally, the proportion of worksites with 50 or more employees that offer nutrition education and/or weight

**Figure 3. Proportion of people 11–24 years who consume an average of three or more daily servings of foods rich in calcium: United States, 1989–91, 1994, and year 2000 target for objective 2.8**



	1989–91	1994	Year 2000 target
Both sexes . . . . .	20	17	50
Female . . . . .	13	11	50

SOURCE: U.S. Department of Agriculture, Continuing Survey of Food Intakes by individuals.

management programs for employees has increased (2.20).

Several nutrition objectives are showing movement away from the target. Overweight prevalence (2.3) has increased for the total population and for all targeted special population groups. Data from 1988–94 for adolescents and adults indicate that the prevalence of overweight has increased substantially since the 1976–80 baseline. In relation to increased overweight prevalence, the proportion of self-reported overweight adults who report using exercise and diet to lose weight (2.7) has decreased. The proportion of the population who met recommendations for consumption of calcium-rich foods (2.8) also decreased; the lowest proportion was among female adolescents and young adults. For females 20–44 years of age, iron deficiency has increased for the total population and for those with low income (2.10). Data for 1992–94 indicate an increase in diabetes incidence (2.24).

### Summary of Progress

Of the 27 objectives in this area, 5 objectives (2.2, 2.4, 2.15, 2.23, and 2.25) have met the target. Progress toward the targets has been made on 11 objectives (2.1, 2.5, 2.6, 2.11, 2.13, 2.14, 2.16, 2.19, 2.22, 2.26, and 2.27). Five objectives moved away from the target: 2.3, 2.7–2.9, and 2.24. Objectives 2.10 (for anemia prevalence) and 2.20 (for worksite nutrition or weight management programs) show mixed results. Four objectives have no new data beyond the baseline with which to measure progress (2.12, 2.17, 2.18, and 2.21).

### Data Issues

#### Definitions

Overweight (2.3) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference

population 20–29 years of age. For adolescents, overweight is defined as the sex- and age-specific 85th percentile from NHANES II (see [Note](#) with the text of objective 2.3). BMI cutoff points for adults are 27.8 kilograms per meter squared for males, and 27.3 kilograms per meter squared for females. Current international research appears to indicate that a lower BMI of 25 kilograms per meter squared may be more clinically relevant to increased risk of cardiovascular disease (3,4).

The 1989–91 estimates for objective 2.6 (fruit, vegetable, and grain intakes) exclude fruits and vegetables eaten as part of potato chips, condiments, fruit-flavored candies, jellies, and jams. The 1994 preliminary estimates do not reflect these exclusions.

Updates for iron deficiency (2.10) from the 1988–94 NHANES III data were made as comparable as possible to the 1976–80 NHANES II estimates to allow for trends comparison. Three methods are used to determine iron deficiency: mean corpuscular volume (MCV), erythrocyte protoporphyrin, and transferrin saturation. Iron deficiency is defined as having abnormal results for two or more methods. In 1988–94, MCV cutoff points were raised by one unit in order to account for differences in MCV values of the reference population at or below the median between NHANES II and NHANES III and known differences in hematocrit measurements (centrifugation in NHANES II versus electronic measurements in NHANES III) and possible methods differences in red blood cell counts (both surveys used electronic measurements but NHANES III data showed counts that appeared lower).

Objective 2.12 addresses feeding practices that prevent baby bottle tooth decay. The measure used to establish a baseline for this objective for the total population, caregivers with less than a high school education (2.12a), blacks (2.12c), and Hispanics (2.12d) is for children 6–23 months old. For this objective, feeding practices to prevent baby bottle tooth decay include: child no longer using a bottle, never used a bottle, or if the child is still using a bottle, that no bottle was given at bedtime (excluding bottles with plain water) during the past 2 weeks.

Objective 2.14 targets nutrition labeling of food products; labeling of fresh produce and fresh fish is measured by the percentage of retail food stores

who provide nutrition labeling. In 1990, the Nutrition Labeling and Education Act mandated the periodic assessment of actions taken by food retailers to provide consumers with nutrition information for raw agricultural commodities and raw fish, in particular to determine whether food retailers could achieve and maintain substantial compliance with guidelines for a voluntary nutrition labeling program. Guidelines for the nutrition labeling of these raw foods were issued in November 1991. A baseline survey conducted in August and September 1991, before the guidelines were issued, determined that virtually no food retailers provided complete nutrition labeling for these foods. Baseline estimates for objective 2.14 published elsewhere (5,6) for fresh produce and fresh seafood have been changed based on this survey and a reinterpretation of the available data. The first followup survey to assess compliance with the final rule was conducted in November and December 1992. The dramatic increase from 1991 to 1992 in the percentage of retail food stores providing nutrition labeling information for raw produce and for raw fish represents a highly significant response to both the Nutrition Labeling and Education Act and the Food and Drug Administration's Agency's implementing regulations.

The data on inquiry about diet and nutrition for objective 2.21 are from the Primary Care Provider Surveys (PCPS), which were drawn from a random stratified sample of members of the American College of Physicians from four geographic regions. Provider groups sampled included internists, pediatricians, nurse practitioners, obstetricians/gynecologists, and family physicians. Response rates varied from 50–80 percent across these groups. The data on formulation of a diet and nutrition plan represent the proportion of providers who routinely delivered these services to 81–100 percent of their clients who needed the plan. The basis for the formulation of a diet plan may be independent of the assessment made by the clinician. In 1997 the PCPS is being fielded by the American College of Preventive Medicine using American Medical Association files.

High blood cholesterol (2.25) is defined as serum cholesterol levels of 240 mg/dL (7). Objective 2.26 addresses the proportion of people with

hypertension whose blood pressure is under control. High blood pressure is defined as blood pressure greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or taking antihypertensive medication. The estimates used to track this objective define control as using antihypertensive medication only and do not include other nonpharmacologic treatments such as weight loss, low sodium diets, and restriction of alcohol.

## Data Source Description

Growth retardation among low-income children (2.4) is tracked by the Pediatric Nutrition Surveillance System (PedNSS). The number of participating States and Indian tribes has varied from year to year. The fluctuations in the scope of surveillance could affect the comparability of estimates.

Data for 2.11 and 2.11a–c are from the Ross Mothers' Survey (RMS) conducted by Abbot Laboratories. The RMS is an ongoing survey that is periodically mailed to mothers at the time their baby is 6 months old. The data are derived from questionnaires mailed to a probability sample of new mothers selected from a list of names that represents approximately 80 percent of all national births. Mothers are asked to recall the type of milk their baby was fed in the hospital and in each month 1 through 6. Mothers are considered to be breastfeeding if they used either human milk exclusively or human milk in combination with a supplemental bottled formula or cow's milk.

Prior to 1996 the data were shown for the early postpartum period (defined as breastfeeding in hospital) and for an average of the period 5–6 months. Beginning with 1996 data the RMS changed the definition of the later period to breastfeeding at 6 months. Therefore, all the RMS data shown in the table for the later period have been recomputed to the 6-month period. The result is either no change or very small decreases in many of the data points for 2.11 and 2.11a–c for the later period.

Beginning with data year 1997, the methodology for the RMS will change. Instead of questionnaires being sent only to mothers with 6-month-old babies, they will be sent to a larger sample of mothers with babies 1–12 months. Therefore, although the overall sample will be approximately double the pre-1997 size, the number in the sample

for each month (including 6 months) will be considerably smaller than previous years. This change will affect the stability of the 6-month figures used to monitor the objective.

Breastfeeding among American Indian/Alaska Native mothers (2.11d) is tracked by the PedNSS. The number of participating States and Indian tribes has varied from year to year. The fluctuations in coverage could affect the comparability of these data.

### Comparability of Data Sources

Overweight (2.3) is being tracked with two data sources. The primary data source is the National Health and Nutrition Examination Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–94 updates; these data are derived from measured height and weight. The second data source is the National Health Interview survey (NHIS). This survey provides interim estimates shown in an earlier publication (8), updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities. NHIS estimates are based on self-reported heights and weights and are not comparable with the actual measured data from NHANES; prevalence estimates of overweight from self-reported height and weight are lower. Trends from the NHIS self-report measures, like those from NHANES, show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

For the use of food labels by adults (2.13) the 1988 baseline measure and 1990 and 1994 updates are from the Health and Diet Survey, Food and Drug Administration. After giving a description of food labels, respondents were asked if they read food labels. The 1991 and 1993 updates from the NHIS asked respondents how often they read food labels for calories, fat, and/or cholesterol content. Respondents answering “always,” “often,” or “sometimes” were considered to be making nutritious food selections using the food labels.

The 1985 and 1992 data for objective 1.10 are from the National Surveys of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Worksites were sampled, because different

worksites within the same company could have different sets of health promotion activities. Both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update is from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not include passive methods of health promotion (9,10).

### Proxy Measures

Objective 2.7 is to increase to at least 50 percent the proportion of overweight people who use sound dietary practices combined with regular physical activity to attain appropriate body weight. Respondents who reported they were overweight and were currently trying to lose weight or control their weight by eating fewer calories and exercising more were included in this objective. However, an assessment of the quality of dietary practices has not yet been coupled with a measure of regular physical activity. The 1985 questionnaire asked respondents specifically if they were eating fewer calories to lose weight and if they were increasing their physical activity to lose weight. In 1991 and 1993, eating fewer calories and exercising more were among a list of 10 possible methods of losing weight in response to the question, “Are you currently doing any of these things to control your weight?” Respondents were asked this question if they reported they were trying to lose weight or stay about the same.

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**Table 2. Nutrition objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>2.1*</b>	<b>Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	1987	135	122	118	114	114	110	108	100
	a. Blacks . . . . .	1987	168	158	156	151	154	147	147	115
<b>2.2*</b>	<b>Cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	134	135	135	133	133	132	130	130
	a. Blacks . . . . .	1990	182	...	179	178	177	174	172	175
<b>2.3*</b>	<b>Overweight prevalence</b> (Based on measured height and weight unless otherwise indicated)									
	Adults 20–74 years . . . . .	1976–80	26%	---	---	---	---	<sup>1,2</sup> 35%	---	20%
	Males . . . . .	1976–80	24%	---	---	---	---	<sup>1,3</sup> 34%	---	20%
	Females . . . . .	1976–80	27%	---	---	---	---	<sup>1,4</sup> 37%	---	20%
	Adolescents 12–19 years . . . . .	1976–80	15%	---	---	---	---	<sup>5</sup> 24%	---	15%
	a. Low-income females 20–74 years . . . . .	1976–80	37%	---	<sup>6</sup> 47%	---	---	---	---	25%
	b. Black females 20–74 years . . . . .	1976–80	44%	---	---	---	---	<sup>1,7</sup> 52%	---	30%
	c. Hispanic females 20–74 years . . . . .	...	---	---	---	---	---	---	---	25%
	Hispanic females 20 years and over (self-reported) <sup>8</sup> . . . . .	...	---	33%	32%	32%	33%	---	---	...
	Mexican-American females 20–74 years . . . . .	1982–84	39%	---	---	---	---	<sup>1,5</sup> 0%	---	...
	Cuban females 20–74 years . . . . .	1982–84	34%	---	---	---	---	---	---	...
	Puerto Rican females 20–74 years . . . . .	1982–84	37%	---	---	---	---	---	---	...
	d. American Indians/Alaska Natives 20 years and over . . . . .	1984–88	29–75%	---	<sup>8</sup> 40%	<sup>8</sup> 36%	<sup>8</sup> 48%	---	---	30%
	e. People with disabilities 20 years and over (self-reported) <sup>8</sup> . . . . .	1985	36%	---	38%	37%	38%	---	---	25%
	f. Females with high blood pressure 20–74 years . . . . .	1976–80	50%	---	---	---	---	---	---	41%
	g. Males with high blood pressure 20–74 years . . . . .	1976–80	39%	---	---	---	---	---	---	35%
	h. Mexican-American males 20–74 years . . . . .	1982–84	30%	---	---	---	---	<sup>1,9</sup> 37%	---	25%
<b>2.4</b>	<b>Growth retardation among low-income children 5 years and under</b> . . . . .	1988	11%	9%	9%	8%	8%	8%	8%	10%
	a. Low-income black children under 1 year . . . . .	1988	15%	15%	15%	15%	16%	16%	15%	10%
	b. Low-income Hispanic children under 1 year . . . . .	1988	13%	9%	8%	8%	7%	7%	7%	10%
	c. Low-income Hispanic children 1 year . . . . .	1988	16%	12%	11%	9%	9%	8%	8%	10%
	d. Low-income Asian/Pacific Islander children 1 year . . . . .	1988	14%	14%	13%	12%	11%	11%	12%	10%
	e. Low-income Asian/Pacific Islander children age 2–4 years . . . . .	1988	16%	14%	12%	11%	10%	10%	10%	10%
<b>2.5*</b>	<b>Dietary fat intake among people 2 years and over</b>									
	National Health and Nutrition Examination Survey									
	Average percent of calories from total fat <sup>10</sup> . . . . .	1976–80	<sup>11</sup> 36%	---	---	---	---	<sup>12</sup> 34%	---	30%
	Average percent of calories from saturated fat <sup>10</sup> . . . . .	1976–80	<sup>11</sup> 13%	---	---	---	---	<sup>12</sup> 12%	---	10%
	Percent who met goal for fat <sup>13</sup> . . . . .	1988–94	<sup>a</sup> 27%	...	...	...	...	...	---	50%
	Percent who met goal for saturated fat <sup>13</sup> . . . . .	1988–94	<sup>a</sup> 29%	...	...	...	...	...	---	50%
	Continuing Survey of Food Intakes by Individuals									
	Average percent of calories from total fat <sup>10</sup> . . . . .	1989–91	34%	...	...	---	---	33%	33%	30%
	Average percent of calories from saturated fat <sup>10</sup> . . . . .	1989–91	12%	...	...	---	---	11%	11%	10%
	Percent who met goal for fat . . . . .	1989–91	<sup>14</sup> 22%	...	...	---	---	<sup>13</sup> 32%	<sup>13</sup> 33%	50%
	Percent who met goal for saturated fat . . . . .	1989–91	<sup>14</sup> 21%	...	...	---	---	<sup>13</sup> 34%	<sup>13</sup> 35%	50%

**Table 2. Nutrition objective status—Con.**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>2.6*</b>	<b>Average daily intake of vegetables, fruits, and grain products</b>									
	People 2 years and over									
	Average number of servings									
	Vegetables and fruits . . . . .	1989–91	<sup>14</sup> 4.1	...	...	---	---	<sup>10,15</sup> 5.0	---	5.0
	Grain products. . . . .	1989–91	<sup>14</sup> 5.8	...	...	---	---	<sup>10</sup> 6.7	---	6.0
	Proportion who met Dietary Guidelines' goal									
	Vegetables and fruits . . . . .	1989–91	<sup>14</sup> 29%	...	...	---	---	<sup>13,15</sup> 41%	---	50%
	Grain products. . . . .	1989–91	<sup>14</sup> 40%	...	...	---	---	<sup>13</sup> 50%	---	50%
<b>2.7*</b>	<b>Sound weight loss practices among overweight people 12 years and over . . . . .</b>	...	---	---	---	---	---	---	---	50%
	Overweight males 18 years and over . . . . .	1985	25%	22%	19%	---	17%	---	---	50%
	Overweight females 18 years and over . . . . .	1985	30%	29%	22%	---	19%	---	---	50%
	a. Overweight Hispanic males 18 years and over . . . . .	1991	15%	...	...	---	11%	---	---	24%
	b. Overweight Hispanic females 18 years and over . . . . .	1991	13%	...	...	---	16%	---	---	22%
<b>2.8</b>	<b>Foods rich in calcium (percent who consume)</b>									
	Average of 3 or more servings daily									
	People 11–24 years. . . . .	1989–91	<sup>14</sup> 20%	...	...	---	---	<sup>13</sup> 17%	---	50%
	Pregnant and lactating females . . . . .	1989–91	<sup>14</sup> 22%	...	...	---	---	<sup>13,15</sup> 20%	---	50%
	Average of 2 or more servings daily <sup>16</sup>									
	Children 2–10 years . . . . .	1989–91	<sup>14</sup> 48%	...	...	---	---	<sup>13</sup> 42%	---	75%
	People 25 years and over . . . . .	1989–91	<sup>14</sup> 21%	...	...	---	---	<sup>13</sup> 20%	---	50%
	Proportion who met average daily goal									
	a. Females 11–24 years . . . . .	1989–91	<sup>14</sup> 13%	...	...	---	---	<sup>13</sup> 11%	---	50%
<b>2.9</b>	<b>Salt and sodium intake</b>									
	Prepare foods without adding salt . . . . .	1989–90	43%	...	---	---	---	---	---	65%
	People who rarely or never use salt at table . . . . .	1989–91	60%	...	...	---	---	56%	58%	80%
	Adults who regularly purchase foods with reduced salt and sodium content. . . . .	1988	20%	---	---	---	---	---	19%	40%
<b>2.10</b>	<b>Iron deficiency prevalence</b>									
	Children 1–4 years . . . . .	...	---	---	---	---	---	<sup>12</sup> 6%	---	3%
	Children 1–2 years . . . . .	1976–80	9%	---	---	---	---	<sup>12</sup> 9%	---	3%
	Children 3–4 years . . . . .	1976–80	4%	---	---	---	---	<sup>12</sup> 4%	---	3%
	Females of childbearing age (20–44 years) . . . . .	1976–80	5%	---	---	---	---	<sup>12</sup> 8%	---	3%
	a. Low-income children 1–2 years. . . . .	1976–80	21%	---	---	---	---	<sup>12</sup> 13%	---	10%
	b. Low-income children 3–4 years. . . . .	1976–80	10%	---	---	---	---	<sup>12</sup> 6%	---	5%
	c. Low-income females 20–44 years. . . . .	1976–80	8%	---	---	---	---	<sup>12</sup> 12%	---	4%
	Anemia prevalence									
	d. Alaska Native children 1–5 years . . . . .	1983–85	22–28%	<sup>17</sup> 38%	<sup>17</sup> 32%	<sup>17</sup> 31%	<sup>17</sup> 29%	<sup>17</sup> 27%	---	10%
	e. Black low-income pregnant females 15–44 years (third trimester) . . . . .	1988	41%	41%	42%	43%	44%	43%	---	20%

Table 2. Nutrition objective status—Con.

Objective		Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
<b>2.11*</b>	<b>Breastfeeding</b>									
	During early postpartum period <sup>18</sup> . . . . .	1988	54%	52%	53%	54%	56%	<sup>19</sup> 60%	<sup>20</sup> 59%	75%
	a. Low-income mothers . . . . .	1988	32%	35%	33%	35%	38%	<sup>19</sup> 42%	<sup>20</sup> 42%	75%
	b. Black mothers . . . . .	1988	25%	16%	26%	28%	31%	<sup>19</sup> 37%	<sup>20</sup> 37%	75%
	c. Hispanic mothers . . . . .	1988	51%	44%	52%	52%	56%	<sup>19</sup> 61%	<sup>20</sup> 61%	75%
	d. American Indian/Alaska Native mothers . . . . .	1988	47%	47%	46%	53%	51%	44%	52%	75%
	At age 6 months . . . . .	1988	<sup>a</sup> 20%	18%	18%	19%	19%	<sup>19</sup> 22%	<sup>20</sup> 22%	50%
	a. Low-income mothers . . . . .	1988	9%	8%	9%	9%	10%	<sup>19</sup> 11%	<sup>20</sup> 12%	50%
	b. Black mothers . . . . .	1988	<sup>a</sup> 7%	6%	7%	9%	9%	<sup>19</sup> 11%	<sup>20</sup> 11%	50%
	c. Hispanic mothers . . . . .	1988	<sup>a</sup> 14%	13%	15%	16%	18%	<sup>19</sup> 20%	<sup>20</sup> 20%	50%
	d. American Indian/Alaska Native mothers . . . . .	1988	28%	27%	22%	24%	28%	24%	24%	50%
<b>2.12*</b>	<b>Baby bottle tooth decay</b>									
	Parents and caregivers who use preventive feeding practices . . . . .	1991	55%	...	...	---	---	---	---	75%
	a. Parent and caregivers with less than high school education . . . . .	1991	36%	...	...	---	---	---	---	65%
	b. American Indian/Alaska Native parents and caregivers . . . . .	1985–89	74%	---	---	---	---	---	---	65%
	c. Black parents and caregivers . . . . .	1991	48%	...	...	---	---	---	---	65%
	d. Hispanic parents and caregivers . . . . .	1991	39%	...	...	---	---	---	---	65%
<b>2.13</b>	<b>Use of food labels</b> . . . . .	1988	74%	76%	---	---	---	74%	75%	85%
	Read food labels for calories, fat, and/or cholesterol content . . . . .	...	---	---	64%	---	66%	---	---	...
<b>2.14</b>	<b>Informative nutrition labeling</b>									
	Processed foods . . . . .	1988	60%	---	66%	---	76%	---	96%	100%
	Fresh produce . . . . .	1991	<sup>a</sup> Less than 1%	...	...	76%	---	75%	<sup>20</sup> 73%	90%
	Fresh seafood . . . . .	1991	<sup>a</sup> 0%	...	...	73%	---	75%	<sup>20</sup> 71%	90%
	Fresh meat/poultry . . . . .	1995	<sup>a</sup> 67%	...	...	...	...	...	...	90%
	Carry-away foods . . . . .	...	---	---	---	---	---	---	---	40%
<b>2.15</b>	<b>Availability of reduced-fat processed foods</b> . . . . .	1986	2,500	---	5,618	---	---	---	---	5,000
<b>2.16</b>	<b>Low-fat, low-calorie restaurant food choices (number of brand items)</b>									
	Proportion of large chain restaurants offering at least one low-fat, low-calorie item . . . . .	1989	70%	75%	---	---	---	---	---	90%
<b>2.17</b>	<b>Nutritious school and child care food services</b> . . . . .	...	---	---	---	---	---	---	---	90%
	Schools offering lunches with an average of:									
	30% or less of calories from total fat . . . . .	1992	1%	...	...	...	---	---	---	...
	Less than 10% of calories from saturated fat . . . . .	1992	Less than 1%	...	...	...	---	---	---	...
	Schools offering breakfasts in USDA program with an average of:									
	30% or less of calories from total fat . . . . .	1992	44%	...	...	...	---	---	---	...
	Less than 10% of calories from saturated fat . . . . .	1992	4%	...	...	...	---	---	---	...
	Schools with initiatives to reduce fat									
	Drained browned meat prior to serving . . . . .	...	---	---	---	---	---	---	92%	...
	Spooned solid fat from chilled meat or poultry . . . . .	...	---	---	---	---	---	---	76%	...
	Baked french fries instead of frying . . . . .	...	---	---	---	---	---	---	52%	...
	Did not provide butter or margarine . . . . .	...	---	---	---	---	---	---	31%	...

Table 2. Nutrition objective status—Con.

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
	Schools offering fresh fruit									
	Daily . . . . .	...	---	---	---	---	---	---	47%	...
	More than once a week . . . . .	...	---	---	---	---	---	---	24%	...
	Schools offering fresh vegetables									
	Daily . . . . .	...	---	---	---	---	---	---	21%	...
	More than once a week . . . . .	...	---	---	---	---	---	---	25%	...
2.18	<b>In need of home-delivered meals for older adults</b> . . . . .	1991	7%	...	...	---	---	---	---	80%
2.19	<b>Nutrition education in schools</b> . . . . .	...	---	---	---	---	---	---	---	75%
	Proportion of States requiring nutrition education . . . . .	1990	60%	...	---	---	---	69%	---	...
	Nutrition education in at least one class:									
	Middle/junior high schools . . . . .	...	---	---	---	---	---	83%	---	...
	Senior high schools . . . . .	...	---	---	---	---	---	85%	---	...
2.20	<b>Worksite nutrition/weight management programs</b>									
	Nutrition education . . . . .	1985	17%	---	---	31%	---	---	---	50%
	Weight control . . . . .	1985	15%	---	---	24%	---	---	---	50%
	Nutrition education and/or weight control . . . . .	...	---	---	---	37%	---	---	---	50%
	Nutrition or cholesterol group classes, workshops, or lectures . . . . .	...	---	---	---	17%	---	---	18%	50%
	Weight management group classes, workshops, or lectures . . . . .	...	---	---	---	15%	---	---	14%	50%
2.21	<b>Nutrition assessment, counseling, and referral by clinicians</b> . . . . .	1988	40–50%	---	---	---	---	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about diet/nutrition									
	Pediatricians . . . . .	...	---	---	---	53%	---	---	---	75%
	Nurses . . . . .	...	---	---	---	46%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	15%	---	---	---	75%
	Internists . . . . .	...	---	---	---	36%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	19%	---	---	---	75%
	Formulation of a diet/nutrition plan									
	Pediatricians . . . . .	...	---	---	---	31%	---	---	---	75%
	Nurses . . . . .	...	---	---	---	31%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	19%	---	---	---	75%
	Internists . . . . .	...	---	---	---	33%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	24%	---	---	---	75%
2.22*	<b>Stroke deaths (age adjusted per 100,000)</b> . . . . .	1987	30.4	27.7	26.8	26.2	26.5	26.5	26.7	20.0
	a. Blacks . . . . .	1987	52.5	48.4	46.8	45.0	45.0	45.4	45.0	27.0
2.23*	<b>Colorectal cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	14.7	13.8	13.5	13.2	13.1	13.0	12.8	13.2
	a. Blacks . . . . .	1990	18.1	...	17.5	17.3	17.6	17.3	17.4	16.5
2.24*	<b>Diabetes incidence and prevalence</b>									
	Total population (per 1,000)									
	Incidence of diabetes . . . . .	1986–88	2.9	<sup>21</sup> 2.6	<sup>22</sup> 2.5	<sup>23</sup> 2.4	<sup>24</sup> 2.8	<sup>25</sup> 3.1	---	2.5
	Prevalence of diabetes . . . . .	1986–88	28	<sup>21</sup> 26	<sup>22</sup> 27	<sup>23</sup> 28	<sup>24</sup> 30	<sup>25</sup> 30	<sup>26</sup> 31	25

**Table 2. Nutrition objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Prevalence of diabetes (per 1,000)									
a. American Indians/Alaska Natives <sup>27</sup> . . . . .	1987	69	67	---	67	70	73	---	62
b. Puerto Ricans (ages 20–74) . . . . .	1982–84	55	---	---	---	---	---	---	49
c. Mexican-Americans (ages 20–74) . . . . .	1982–84	54	---	---	---	---	<sup>25,28</sup> 6	---	49
d. Cuban Americans (ages 20–74) . . . . .	1982–84	36	---	---	---	---	---	---	32
e. Blacks (all ages) . . . . .	1986–88	36	<sup>21</sup> 36	<sup>22</sup> 36	<sup>23</sup> 36	<sup>24</sup> 38	<sup>25,28</sup> 4	<sup>26</sup> 42	32
<b>2.25* High blood cholesterol prevalence</b>									
People 20–74 years <sup>28</sup> . . . . .	1976–80	27%	---	---	---	---	<sup>12</sup> 19%	---	20%
Males 20–74 years <sup>28</sup> . . . . .	1976–80	25%	---	---	---	---	<sup>12</sup> 18%	---	20%
Females 20–74 years <sup>28</sup> . . . . .	1976–80	29%	---	---	---	---	<sup>12</sup> 20%	---	20%
<b>2.26* Controlled high blood pressure</b>									
People with high blood pressure <sup>29</sup> . . . . .	1976–80	11%	---	<sup>1</sup> 29%	---	---	---	---	50%
a. Males with high blood pressure <sup>29</sup> . . . . .	1976–80	6%	---	<sup>1</sup> 22%	---	---	---	---	40%
b. Mexican-Americans with high blood pressure <sup>29</sup> . . . . .	1988–91	14%	...	...	---	---	---	---	50%
c. Females 70 years and over with high blood pressure . . . . .	1988–91	19%	...	...	---	---	---	---	50%
<b>2.27* Mean serum cholesterol level (mg/dL)</b>									
People 20–74 years <sup>28</sup> . . . . .	1976–80	213	---	---	---	---	<sup>12</sup> 203	---	200
Males 20–74 years <sup>28</sup> . . . . .	1976–80	211	---	---	---	---	<sup>12</sup> 202	---	200
Females 20–74 years <sup>28</sup> . . . . .	1976–80	215	---	---	---	---	<sup>12</sup> 204	---	200

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1988–94 data, 20 years and over.

<sup>2</sup>1988–91 data show 34% for 20–74 years, 33% for 20 years and over.

<sup>3</sup>1988–91 data show 32% for 20–74 years, 31% for 20 years and over.

<sup>4</sup>1988–91 data show 36% for 20–74 years, 35% for 20 years and over.

<sup>5</sup>1988–94 data; 1988–91 data show 21% for ages 12–19 years.

<sup>6</sup>1988–91 data.

<sup>7</sup>1988–91 data show 49% for 20–74 years, 49% for 20 years and over.

<sup>8</sup>Estimate derived from self-reported height and weight.

<sup>9</sup>1988–91 data show 36% for 20–74 years, 39% for 20 years and over.

<sup>10</sup>One-day dietary data.

<sup>11</sup>For persons up to 74 years.

<sup>12</sup>1988–94 data.

<sup>13</sup>Two-day dietary data.

<sup>14</sup>Three-day dietary data.

<sup>15</sup>Preliminary estimate.

<sup>16</sup>Excluding pregnant/lactating females and breastfed children.

<sup>17</sup>Low-income children 1–4 years.

<sup>18</sup>Breastfed in hospital.

<sup>19</sup>1995 data.

<sup>20</sup>1996 data.

<sup>21</sup>1988–90 data.

<sup>22</sup>1989–91 data.

<sup>23</sup>1990–92 data.

<sup>24</sup>1991–93 data.

<sup>25</sup>1992–94 data.

<sup>26</sup>1993–95 data.

<sup>27</sup>Data are for American Indian/Alaska Natives 15 years and over in Indian Health Service areas only.

<sup>28</sup>Crude rates.

<sup>29</sup>People 18–74 years.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
2.1*, 2.1a	National Vital Statistics System, CDC, NCHS.
2.2*, 2.2a	National Vital Statistics System, CDC, NCHS.
2.3*, 2.3a,b,f,g	National Health and Nutrition Examination Survey, CDC, NCHS.
2.3c, h	Data for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican-Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican-Americans: National Health and Nutrition Examination Survey, CDC, NCHS.
2.3d	Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
2.3e	National Health Interview Survey, CDC, NCHS.
2.4, 2.4a–e	Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
2.5*	1976–80 and 1988–94 data: National Health and Nutrition Examination Survey, CDC, NCHS. 1989–91 baselines and 1994, 1995 updates: Continuing Survey of Food Intakes by Individuals, USDA.
2.6*	Continuing Survey of Food Intakes by Individuals, USDA.
2.7*, 2.7a–b	National Health Interview Survey, CDC, NCHS.
2.8, 2.8a	Continuing Survey of Food Intakes by Individuals, USDA.
2.9	Preparing foods and use of salt at table: Continuing Survey of Food Intakes by Individuals, USDA. Purchasing reduced-salt foods: Health and Diet Survey, FDA.
2.10, 2.10a–c	National Health and Nutrition Examination Survey, CDC, NCHS.
2.10d	Baseline: Survey of American Indians/Alaska Natives, CDC and Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
2.10e	Pregnancy Nutrition Surveillance System, CDC, NCCDPHP.
2.11*, 2.11a–c	Ross Mothers' Survey, Abbot Laboratories.
2.11d	Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
2.12*, 2.12a,c,d	National Health Interview Survey, CDC, NCHS.
2.12b	1990 Baby Bottle Tooth Decay 5-years Evaluation Report, IHS.
2.13	1988 Baseline, 1990 and 1994 updates: Health and Diet Survey, FDA. 1991 Baseline and 1993 update: National Health Interview Survey, CDC, NCHS.
2.14	Data for processed foods: Food Label and Package Survey, FDA. Data for fresh produce and seafood: Nutrition Labeling of Raw Produce and Raw Fish, FDA. Data for fresh meat/poultry: Nutritional Labeling/Safe Handling Information Study: Raw Meat and Poultry, USDA.
2.15	Nielsen Company National Scantrack.
2.16	Survey of Chain Operators, National Restaurant Association.
2.17	For lunches and breakfasts: School Nutrition and Dietary Assessment Study, USDA. For initiatives, fresh fruits and vegetables: School Health Policies and Programs Study, CDC, NCCDPHP.
2.18	National Health Interview Survey, CDC, NCHS.
2.19	Baseline: National Survey of School Health Education Activities, CDC, NCCDPHP. Update: School Health Policies and Programs Study, CDC, NCCDPHP.
2.20	National Survey of Worksite Health Promotion Activities, OASH, ODPHP. 1995 Update: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.

<i>Objective number</i>	<i>Data source</i>
2.21	1988 Baseline: Lewis CE. Disease prevention and health promotion practices of primary care physicians in the United States. Am J Prev Med 4:9–16. 1988.
2.22*, 2.22a	1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.
2.23*, 2.23a	National Vital Statistics System, CDC, NCHS.
2.24*, 2.24e	National Health Interview Survey, CDC, NCHS.
2.24a	Ambulatory Utilization Data, Indian Health Service.
2.24c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Update: National Health and Nutrition Examination Survey, CDC, NCHS.
2.24b,d	Hispanic Health and Nutrition Examination Survey, CDC, NCHS.
2.25*	National Health and Nutrition Examination Survey, CDC, NCHS.
2.26*, 2.26a–c	National Health and Nutrition Examination Survey, CDC, NCHS.
2.27*	National Health and Nutrition Examination Survey, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Nutrition Objectives

**2.1\***: Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 3.1, and 15.1

**2.1a\***: Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 3.1a, and 15.1a

**2.2\***: Reverse the rise in cancer deaths to achieve a rate of no more than 130 per 100,000 people.

*NOTE: In its publications, the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 175 per 100,000.*

Duplicate objective: 16.1

**2.2a\***: Reverse the rise in cancer deaths to achieve a rate of no more than 175 per 100,000 blacks.

Duplicate objective: 16.1a

**2.3\***: Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the modified age- and sex-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II). BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 1.2, 15.10, and 17.12

**2.3a\***: Reduce overweight to a prevalence of no more than

25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 15.10a, and 17.12a

**2.3b\***: Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 15.10b, and 17.12b

**2.3c\***: Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 15.10c, and 17.12c

**2.3d\***: Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 15.10d, and 17.12d

**2.3e\***: Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 15.10e, and 17.12e

**2.3f\***: Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 1.2f, 15.10f, and 17.12f

**2.3g\***: Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 1.2g, 15.10g, and 17.12g

**2.3h\***: Reduce overweight to a prevalence of no more than 25 percent among Mexican-American men.

Duplicate objectives: 1.2h, 15.10h, and 17.12h

**2.4**: Reduce growth retardation among low-income children aged 5 and younger to less than 10 percent.

*NOTE: Growth retardation is defined as height-for-age below the fifth percentile of children in the National Center for Health Statistics' reference population derived from 1971–74 NHANES I.*

**2.4a**: Reduce growth retardation among low-income black children younger than age 1 to less than 10 percent.

**2.4b**: Reduce growth retardation among low-income Hispanic children younger than age 1 to less than 10 percent.

**2.4c**: Reduce growth retardation among low-income Hispanic children aged 1 to less than 10 percent.

**2.4d**: Reduce growth retardation among low-income Asian and Pacific Islander children aged 1 to less than 10 percent.

**2.4e**: Reduce growth retardation among low-income Asian and Pacific Islander children aged 2–4 to less than 10 percent.

**2.5\***: Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the Dietary Guidelines' average daily goal of no more than 30 percent of calories from fat, and increase to at least 50 percent the proportion of people aged 2 and older who meet the average daily goal of less than 10 percent of calories from saturated fat.

Duplicate objectives: 15.9 and 16.7

**2.6\***: Increase complex carbohydrate and fiber-containing foods in the diets of people aged 2 and older to an average of five or more daily servings for vegetables (including legumes) and fruits, and to an average of six or more daily servings for grain products. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the Dietary Guidelines' average daily goal of five or more servings of vegetables/fruits, and increase to at least 50 percent the proportion who meet the goal of six or more servings of grain products.

*NOTE: The definition of vegetables, fruits, grain products, and serving size designations are derived from The Food Guide Pyramid. Vegetable, fruit, and grain ingredients from mixtures are included in the total, and fractions of servings are counted.*

Duplicate objective: 16.8

**2.7\*:** Increase to at least 50 percent the proportion of overweight people aged 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 1.7

**2.7a\*:** Increase to at least 24 percent the proportion of overweight Hispanic males aged 18 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 1.7a

**2.7b\*:** Increase to at least 22 percent the proportion of overweight Hispanic females aged 18 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 1.7b

**2.8:** Increase calcium intake so at least 50 percent of people aged 11–24 and 50 percent of pregnant and lactating women consume an average of three or more daily servings of foods rich in calcium, and at least 75 percent of children aged 2–10 and 50 percent of people aged 25 and older consume an average of two or more servings daily.

*NOTE: Calcium-rich foods are defined for this purpose as milk and milk products, and the recommended number of servings and the age groupings are based on The Food Guide Pyramid and on the National Research Council's Recommended Dietary Allowance (RDA) for calcium, respectively. Milk and milk product ingredients in mixtures are included, and fractions of servings are counted.*

**2.8a:** Increase calcium intake so at least 50 percent of females aged 11–24 consume an average of three or more daily servings of foods rich in calcium.

**2.9:** Decrease salt and sodium intake so at least 65 percent of home meal preparers prepare foods without adding salt, at least 80 percent of people avoid using salt at the table, and at least 40 percent of adults regularly purchase foods modified or lower in sodium.

**2.10:** Reduce iron deficiency to less than

3 percent among children aged 1 through 4 and among women of childbearing age.

*NOTE: Iron deficiency is defined as having abnormal results for two or more of the following tests: mean corpuscular volume, erythrocyte protoporphyrin, and transferrin saturation. Anemia is used as an index of iron deficiency. Anemia among Alaska Native children was defined as hemoglobin less than 11 gm/dL or hematocrit less than 34 percent. For pregnant women in the third trimester, anemia was defined according to CDC criteria. The above prevalences of iron deficiency and anemia may be due to inadequate dietary iron intakes or to inflammatory conditions and infections. For anemia, genetics may also be a factor.*

**2.10a:** Reduce iron deficiency to less than 10 percent among low-income children aged 1–2.

**2.10b:** Reduce iron deficiency to less than 5 percent among low-income children aged 3–4.

**2.10c:** Reduce iron deficiency to less than 4 percent among low-income women of childbearing age.

**2.10d:** Reduce the prevalence of anemia to less than 10 percent among Alaska Native children aged 1–5.

**2.10e:** Reduce the prevalence of anemia to less than 20 percent among black, low-income pregnant women (third trimester).

**2.11\*:** Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9

*NOTE: The definition used for breastfeeding includes exclusive use of human milk or the use of human milk with a supplemental bottle of formula or cow's milk.*

**2.11a\*:** Increase to at least 75 percent the proportion of low-income mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9a

**2.11b\*:** Increase to at least 75 percent the proportion of black mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9b

**2.11c\*:** Increase to at least 75 percent the proportion of Hispanic mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9c

**2.11d\*:** Increase to at least 75 percent the proportion of American Indian and Alaska Native mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9d

**2.12\*:** Increase to at least 75 percent the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11

**2.12a\*:** Increase to at least 65 percent the proportion of parents and caregivers with less than a high school education who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11a

**2.12b\*:** Increase to at least 65 percent the proportion of American Indian and Alaska Native parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11b

**2.12c\*:** Increase to at least 65 percent the proportion of black parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11c

**2.12d\*:** Increase to at least 65 percent the proportion of Hispanic parents and caregivers

who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11d

**2.13:** Increase to at least 85 percent the proportion of people aged 18 and older who use food labels to make nutritious food selections.

**2.14:** Achieve useful and informative nutrition labeling for virtually all processed foods and at least 40 percent of ready-to-eat carry-away foods. Achieve compliance by at least 90 percent of retailers with the voluntary labeling of fresh meats, poultry, seafood, fruits, and vegetables.

**2.15:** Increase to at least 5,000 brand items the availability of processed food products that are reduced in fat and saturated fat.

*NOTE: A brand item is defined as a particular flavor and/or size of a specific brand and is typically the consumer unit of purchase.*

**2.16:** Increase to at least 90 percent the proportion of restaurants and institutional food service operations that offer identifiable low-fat, low-calorie food choices, consistent with the Dietary Guidelines for Americans.

**2.17:** Increase to at least 90 percent the proportion of school lunch and breakfast services and child care food services with menus that are consistent with the nutrition principles in the Dietary Guidelines for Americans.

**2.18:** Increase to at least 80 percent the receipt of home food services by people aged 65 and older who have difficulty in preparing their own meals or are otherwise in need of home-delivered meals.

**2.19:** Increase to at least 75 percent the proportion of the Nation's schools that provide nutrition education from preschool–12th grade, preferably as part of comprehensive school health education.

**2.20:** Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer nutrition education and/or weight management programs for employees.

**2.21:** Increase to at least 75 percent the proportion of primary care providers who provide nutrition assessment and counseling and/or referral to qualified nutritionists or dietitians.

**2.22\*:** Reduce stroke deaths to no more than 20 per 100,000 people.

Duplicate objectives: 3.18 and 15.2

**2.22a\*:** Reduce stroke deaths among blacks to no more than 27 per 100,000.

Duplicate objectives: 3.18a and 15.2a

**2.23\*:** Reduce colorectal cancer deaths to no more than 13.2 per 100,000 people.

Duplicate objective: 16.5

**2.23a\*:** Reduce colorectal cancer deaths among blacks to no more than 16.5 per 100,000.

Duplicate objective: 16.5a

**2.24\*:** Reduce diabetes to an incidence of no more than 2.5 per 1,000 people and a prevalence of no more than 25 per 1,000 people.

Duplicate objective: 17.11

**2.24a\*:** Reduce diabetes among American Indians and Alaska Natives to a prevalence of no more than 62 per 1,000.

Duplicate objective: 17.11a

**2.24b\*:** Reduce diabetes among Puerto Ricans to a prevalence of no more than 49 per 1,000.

Duplicate objective: 17.11b

**2.24c\*:** Reduce diabetes among Mexican-Americans to a prevalence of no more than 49 per 1,000.

Duplicate objective: 17.11c

**2.24d\*:** Reduce diabetes among Cuban Americans to a prevalence of no more than 32 per 1,000.

Duplicate objective: 17.11d

**2.24e\*:** Reduce diabetes among blacks to a prevalence of no more than 32 per 1,000.

Duplicate objective: 17.11e

**2.25\*:** Reduce the prevalence of blood cholesterol levels of 240 mg/dL or greater to no more than 20 percent among adults.

Duplicate objective: 15.7

**2.26\*:** Increase to at least 50 percent the proportion of people with high blood pressure whose blood pressure is under control.

*NOTE: People with high blood pressure have blood pressure equal to or greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or take antihypertensive medication. Blood pressure control is defined as maintaining a blood pressure less than 140 mm Hg systolic and 90 mm Hg diastolic. Control of hypertension does not include nonpharmacologic treatment.*

Duplicate objective: 15.4

**2.26a\*:** Increase to at least 40 percent the proportion of men with high blood pressure whose blood pressure is under control.

Duplicate objective: 15.4a

**2.26b\*:** Increase to at least 50 percent the proportion of Mexican-Americans with high blood pressure whose blood pressure is under control.

Duplicate objective: 15.4b

**2.26c\*:** Increase to at least 50 percent the proportion of women 70 years and older with high blood pressure whose blood pressure is under control.

Duplicate objective: 15.4c

**2.27\*:** Reduce the mean serum cholesterol level among adults to no more than 200 mg/dL.

Duplicate objective: 15.6

\*Duplicate objective.

# Priority Area 3 Tobacco

## Background

Tobacco use is responsible for approximately one of every five deaths in the United States and is the single most important preventable cause of death and disease in our society (1,2). Cigarette smoking accounts for approximately 430,000 deaths yearly (3), including 21 percent of all coronary heart disease deaths, 87 percent of all lung cancer deaths, and 82 percent of all deaths from chronic obstructive pulmonary disease (1). Smoking is responsible for more than 5 million years of potential life lost each year (2). One out of three young people who become regular smokers will die of a smoking-related disease (4). If current smoking patterns continue, an estimated 25 million persons in the United States who are alive today will die prematurely from smoking-related illnesses, including an estimated 5 million persons now under 18 years of age (3).

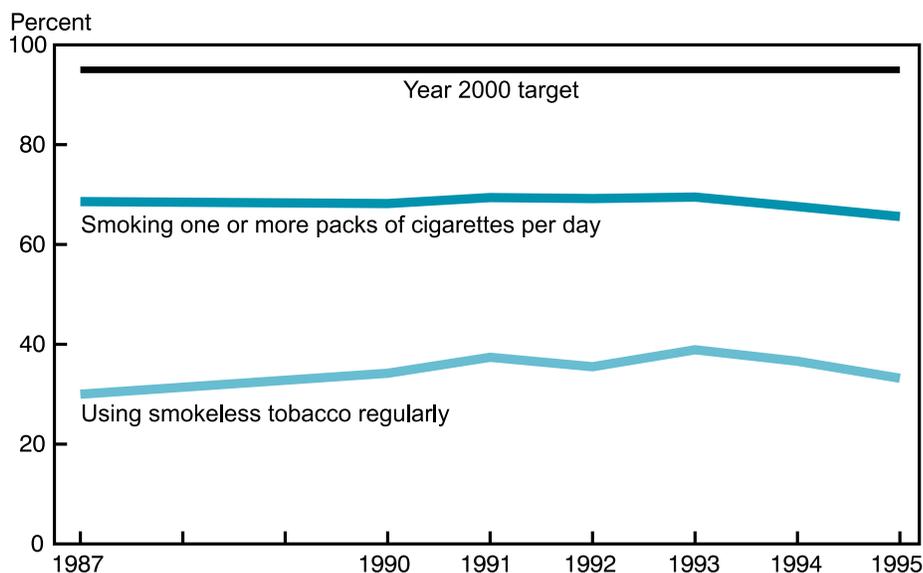
Smoking contributes substantially to chronic morbidity and disability as well. In 1993, smoking-related illnesses cost the Nation \$50 billion in health care costs (5). In 1990, estimated indirect losses due to smoking were approximately \$47 billion (6). Cigarette smoking during pregnancy accounts for 17–26 percent of low-birthweight babies (7). Environmental tobacco smoke also causes disease, including lung cancer in healthy nonsmokers and respiratory problems in young children and infants (8). The prevalence of smoking remains disproportionately high among blue-collar workers, military personnel, and American Indians and Alaska Natives.

## Data Summary

### Highlights

Recent data show some progress toward achieving the objectives in the tobacco priority area. Coronary heart disease mortality (3.1) is declining for the total population. Lung cancer mortality (3.2) and chronic obstructive lung disease mortality (3.3) have slowed to a rate that will stay below the year 2000 target. Cigarette-smoking

**Figure 4. Proportion of high school seniors who associate harm with regular use of tobacco: United States, 1987–95, and year 2000 target for objective 3.22**



	1987	1990	1991	1992	1993	1994	1995	Year 2000 target
Smoking one or more packs of cigarettes per day . . . . .	68.6	68.2	69.4	69.2	69.5	67.6	65.6	95.0
Using smokeless tobacco regularly . . . . .	30.0	34.2	37.4	35.5	38.9	36.6	33.2	95.0

SOURCE: National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future (High School Senior Survey).

prevalence (3.4) has declined somewhat since the 1987 baseline. However, prevalence has remained essentially unchanged since 1990. Smoking by high school seniors was essentially unchanged from the mid-1980's to the early 1990's but has increased in recent years (9). Smoking cessation attempts among the general public have increased slightly (3.6) but they have decreased among pregnant women (3.7). Smokeless tobacco use (3.9) has decreased for males 18–24 years and males 12–17 years. There has been an increase in the proportion of schools and worksites with smoking policies (3.10 and 3.11). All States have enacted laws prohibiting the sale and distribution of tobacco products to youth under 18 years of age (3.13); however, these laws are often not enforced (10). The average age of first use for cigarettes has increased (3.19), although the perception of social disapproval and harm by high school seniors for smoking cigarettes is decreasing (3.21 and 3.22).

## Summary of Progress

One objective (3.13) has met the target for laws, but not for enforcement. Data for 17 objectives (3.1–3.4, 3.6, 3.8–3.14, 3.16–3.18, 3.23, and 3.26) show improvements toward the year 2000 targets. Although data for objective 3.19 indicate mixed progress overall, average age of first use of cigarettes has moved toward the year 2000 target. Objectives 3.7, 3.21 (cigarette smoking), and 3.25 are moving away from the target, and objective 3.5 shows no change from the baseline. Data beyond baseline were not available for two objectives (3.15 and 3.24). Because of survey changes, progress is unknown for objective 3.20 for cigarettes (see following text). Objective 3.22 shows mixed progress for cigarette smoking and smokeless tobacco use.

## Data Issues

### Definitions

Beginning in 1992, the definition of current smoker (3.4) was modified to specifically include persons who smoked only some days. Prior to 1992, a current smoker was defined by the questions: "Have you ever smoked 100 cigarettes in your lifetime?" and "Do you smoke now?" In 1992, data were collected and analyzed for half the respondents using these smoking questions and for the other half of respondents using a revised smoking question: "Do you smoke everyday, some days, or not at all?" The 1992 estimate combines data collected using both sets of questions. Updates after 1992 are based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

The baseline for objective 3.7 (cessation of cigarette smoking early in pregnancy, with abstinence throughout pregnancy) is from a 1986 telephone interview of white women selected from the respondents to the 1985 National Health Interview Survey (NHIS) (11). Beginning with 1991, progress toward the target is being tracked using periodic supplements to the NHIS. The 1985 and 1991 surveys used different definitions for smoking before pregnancy and for the duration of quitting during pregnancy. The 1991 measure, which focused on women who quit during the first trimester is closer to the intent of the objective, but not comparable to the 1985 baseline that counted women who quit any time during pregnancy.

For objective 3.8 (children's exposure to tobacco smoke at home), the definition of regular exposure is defined as the occurrence of tobacco smoking anywhere in the home on more than 3 days each week.

The Primary Care Providers Survey data on inquiry for objective 3.16 refer to the proportion of providers who routinely provided service to 81–100 percent of their clients. Counseling data to discuss strategies to quit smoking represent the proportion of providers who routinely delivered these services to 81–100 percent of their clients who needed the intervention. Reporting of counseling may be independent of the assessment made by the clinician.

Objective 3.25 seeks to reduce the number of States with preemptive clean indoor air laws. Preemptive laws prevent local jurisdictions from enacting more stringent restrictions than the State law or restrictions that vary from the State law (12).

### Comparability of Data Sources

Information on objective 3.9 (smokeless tobacco use by males 12–24 years of age) is tracked by two surveys. Males 12–17 years of age are tracked by the National Household Survey on Drug Abuse (NHSDA). In this survey smokeless tobacco use is defined as any use of snuff or chewing tobacco in the preceding month. For males 18–24 years of age, information is obtained from the NHIS. The NHIS defines a smokeless tobacco user as someone who has used either snuff or chewing tobacco at least 20 times and who currently uses either of these substances every day or some days. Information for males 18–25 years of age is also available from the NHSDA using the same definition as for the younger age group. According to the NHSDA, smokeless tobacco use among males 18–24 years shows a similar downward trend to that observed from the NHIS. The smokeless tobacco use prevalence estimate from NHSDA is higher than the NHIS estimate (11.7 percent compared with 8.2 percent in 1992). Differences between the NHSDA and the NHIS may be due to differences in the definition of smokeless tobacco use between the two surveys and/or methodological differences in survey administration (written answer sheets in the NHSDA and verbal responses in the NHIS). An improved questionnaire and editing procedures were introduced with the 1994 NHSDA survey and affect comparability with previous years, especially for tobacco use among adolescents.

The NHSDA is used to measure objective 3.20 regarding substance use among adolescents and young people. Beginning in 1991, the survey was expanded to include college students living in residence halls. In 1994, an improved questionnaire and editing procedures were introduced, which affects comparability with previous years. Additionally, in 1994, data were collected for cigarettes using a self-administered questionnaire, unlike previous years where questions regarding cigarette smoking were asked

by the interviewers. This change in questionnaire administration greatly increased the cigarette-use estimates among adolescents, most likely due to the increased confidentiality of the new methodology.

### Data Source Descriptions

The 1985 and 1992 data for objective 3.11 (worksites smoking policies) are from the National Survey of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Worksites were sampled because different worksites within the same company could have different sets of health promotion activities. Both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update comes from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not include passive methods of health promotion (13,14).

### Proxy Measures

The proportion of people 20–24 years of age who currently smoke cigarettes is used as a proxy measure for initiation of cigarette smoking by children and youth (objective 3.5).

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**Table 3. Tobacco objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>3.1*</b>	<b>Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	1987	135	122	118	114	114	110	108	100
	a. Blacks . . . . .	1987	168	158	156	151	154	147	147	115
<b>3.2*</b>	<b>Slow the rise in lung cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	38.5	39.9	39.6	39.3	39.3	38.7	38.3	42
	a. Females . . . . .	1990	25.6	...	25.8	26.3	26.5	26.6	26.9	27
	b. Black males . . . . .	1990	86.1	...	83.1	81.2	80.7	77.6	75.7	91
<b>3.3</b>	<b>Slow the rise in chronic obstructive pulmonary disease deaths (age adjusted per 100,000)</b> . . . . .	1987	18.9	19.7	20.1	19.9	21.4	21.0	20.8	25
<b>3.4*</b>	<b>Cigarette smoking prevalence</b>									
	People 18 years and over . . . . .	1987	29%	25%	26%	27%	25%	26%	---	15%
	Males . . . . .	1987	31%	28%	28%	29%	28%	28%	---	15%
	Females . . . . .	1987	27%	23%	23%	25%	22%	23%	---	15%
	a. People 20 years and over with high school education or less . . . . .	1987	34%	31%	31%	32%	30%	31%	---	20%
	b. Blue-collar workers 18 years and over . . . . .	1987	41%	36%	36%	36%	34%	39%	---	20%
	c. Military personnel . . . . .	1988	42%	---	---	35%	---	---	---	20%
	d. Blacks 18 years and over . . . . .	1987	33%	26%	29%	28%	26%	27%	---	18%
	e. Hispanics 18 years and over . . . . .	1987	24%	23%	20%	21%	20%	20%	---	15%
	f. American Indians/Alaska Natives 18 years and over . . . . .	1979–87	<sup>1</sup> 42–70%	38%	31%	40%	39%	40%	---	20%
	g. Southeast Asian males . . . . .	1984–88	55%	<sup>2</sup> 35%	---	---	---	---	---	20%
	h. Females of reproductive age (18–44 years) . . . . .	1987	29%	26%	27%	28%	26%	27%	---	12%
	i. Pregnant females . . . . .	1985	25%	19%	20%	---	20%	---	---	10%
	j. Females who use oral contraceptives . . . . .	1983	36%	<sup>3</sup> 26%	---	---	---	---	---	10%
<b>3.5</b>	<b>Smoking initiation by children and adolescents</b> . . . . .	1987	30%	26%	24%	28%	27%	30%	---	15%
	a. Lower socioeconomic status people 20–24 years <sup>4</sup> . . . . .	1987	40%	35%	33%	38%	38%	39%	---	18%
<b>3.6</b>	<b>Smoking cessation attempts</b> . . . . .	1986	34%	---	39%	37%	38%	38%	---	50%
<b>3.7</b>	<b>Smoking cessation during pregnancy</b> . . . . .	1985	<sup>5</sup> 39%	---	31%	---	---	---	---	60%
	a. Females with less than a high school education . . . . .	1985	<sup>5</sup> 28%	---	21%	---	---	---	---	45%
<b>3.8*</b>	<b>Children's exposure to smoke at home</b> . . . . .	1986	39%	---	32%	---	27%	27%	---	20%
<b>3.9*</b>	<b>Smokeless tobacco use</b>									
	Males 12–17 years <sup>6</sup> . . . . .	1988	6.6%	---	5.3%	4.8%	3.9%	5.1%	4.9%	4%
	Males 18–24 years <sup>7</sup> . . . . .	1987	8.9%	---	9.9%	8.2%	7.8%	6.9%	---	4%
	a. American Indians/Alaska Natives 18–24 years . . . . .	1986–87	18–64%	---	<sup>8</sup> ---	<sup>8</sup> ---	<sup>8</sup> ---	<sup>8</sup> ---	---	10%
<b>3.10</b>	<b>Tobacco-use prevention education and tobacco-free schools</b>									
	School districts providing tobacco-free environments . . . . .	1988	17%	---	---	---	---	<sup>9</sup> 36.5%	---	100%
	School districts providing antismoking education									
	High school . . . . .	1988	78%	---	---	---	---	90.7%	---	100%
	Middle school . . . . .	1988	81%	---	---	---	---	82.5%	---	100%
	Elementary school . . . . .	1988	75%	---	---	---	---	---	---	100%
<b>3.11*</b>	<b>Worksites with smoking policies</b>									
	Policy that bans smoking or limits it to separately ventilated areas									
	50 or more employees . . . . .	1985	27%	---	---	59%	---	---	---	100%
	Any smoking policy									
	Medium and large companies . . . . .	1987	54%	---	85%	---	---	---	---	100%
	50 or more employees . . . . .	...	---	---	---	86%	---	---	87%	...

**Table 3. Tobacco objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>3.12*</b>	<b>Number of States with comprehensive laws for clean indoor air in:</b>									
	Private workplaces . . . . .	1995	a1	...	...	...	...	...	101	1151
	Public workplaces . . . . .	1995	a9	...	...	...	...	...	109	1151
	Restaurants . . . . .	1995	2	...	...	...	...	...	103	1151
	Public transportation <sup>11</sup> . . . . .	1995	a17	...	...	...	...	...	1017	1151
	Hospitals . . . . .	1995	8	...	...	...	...	...	108	1151
	Day care centers . . . . .	1995	21	...	...	...	...	...	1021	1151
	Grocery stores . . . . .	1995	a4	...	...	...	...	...	104	1151
<b>3.13</b>	<b>Number of States with tobacco product sale and distribution to youth laws<sup>11</sup> . . . . .</b>	1990	45	...	50	50	51	51	51	51
	Number of States enforcing laws to achieve buy rates no higher than 20 percent . . . . .	...	---	---	---	---	---	---	---	1251
<b>3.14</b>	<b>Number of States with plans to reduce tobacco use . . . . .</b>	1989	12	---	---	1135	---	1139	---	1251
<b>3.15</b>	<b>Tobacco product advertising and promotion to youth . . . . .</b>	1990	Minimal restrictions	...	---	---	---	---	---	Eliminate or severely restrict
<b>3.16</b>	<b>Cessation counseling and followup by clinicians</b>									
	Percent of clinicians routinely providing service to at least 75% of patients									
	Inquiry about smoking									
	General dentists . . . . .	1986	26%	---	---	---	---	32.8%	---	75%
	Advised patients about smoking (among patients reporting smoking)									
	General dentists . . . . .	1986	35%	---	---	---	---	64.8%	---	75%
	Internists (including subspecialists) . . . . .	1986	52%	---	---	---	---	---	---	75%
	Primary care providers . . . . .	1986	63%	---	---	---	---	---	---	75%
	Inquiry about smokeless tobacco use									
	General dentists . . . . .	...	---	---	---	---	---	14.4%	---	...
	Advised patients about smokeless tobacco use (among patients reporting smokeless tobacco use)									
	General dentists . . . . .	...	---	---	---	---	---	75.0%	---	...
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about tobacco use									
	Pediatricians . . . . .	...	---	---	---	33%	---	---	---	75%
	Nurse practitioners . . . . .	...	---	---	---	51%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	49%	---	---	---	75%
	Internists . . . . .	...	---	---	---	75%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	59%	---	---	---	75%
	Discussion of strategies to quit smoking									
	Pediatricians . . . . .	...	---	---	---	19%	---	---	---	75%
	Nurse practitioners . . . . .	...	---	---	---	20%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	28%	---	---	---	75%
	Internists . . . . .	...	---	---	---	50%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	43%	---	---	---	75%

**Table 3. Tobacco objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>3.17* Oral cancer deaths (per 100,000)</b>									
Males 45–74 years . . . . .	1987	13.6	13.4	12.7	12.2	12.1	11.1	11.0	10.5
Females 45–74 years . . . . .	1987	4.8	4.6	4.3	4.3	4.2	4.0	3.9	4.1
a. Black males 45–74 years . . . . .	1990	29.4	...	26.9	27.3	26.2	25.2	23.4	26.0
b. Black females 45–74 years . . . . .	1990	6.9	...	6.9	6.0	5.8	5.7	6.4	6.9
<b>3.18* Stroke deaths (age adjusted per 100,000)</b>	1987	30.4	27.7	26.8	26.2	26.5	26.5	26.7	20.0
a. Blacks . . . . .	1987	52.5	48.4	46.8	45.0	45.0	45.4	45.0	27.0
<b>3.19* Average age of first use (adolescents 12–17 years)</b>									
Cigarettes . . . . .	1988	11.6	11.5	11.5	11.7	11.7	12.2	---	12.6
Alcohol . . . . .	1988	13.1	12.8	12.6	13.0	12.9	12.8	---	14.1
Marijuana . . . . .	1988	13.4	13.4	13.5	13.8	13.9	14.1	---	14.4
<b>3.20* Use in past month by adolescents and young adults</b>									
Alcohol									
12–17 years . . . . .	1988	25.2%	24.5%	20.3%	15.7%	18.0%	<sup>12</sup> 21.6%	21.1%	12.6%
18–20 years . . . . .	1988	57.9%	52.3%	57.0%	50.3%	49.9%	<sup>12</sup> 54.6%	---	29.0%
Hispanics 12–17 years . . . . .	1991	22.5%	...	...	16.2%	17.5%	<sup>12</sup> 18.3%	18.7%	12.0%
Marijuana									
12–17 years . . . . .	1988	6.4%	5.2%	4.3%	4.0%	4.9%	<sup>12</sup> 6.0%	8.2%	3.2%
18–25 years . . . . .	1988	15.5%	12.7%	13.0%	11.0%	11.1%	<sup>12</sup> 12.1%	12.0%	7.8%
Cocaine									
12–17 years . . . . .	1988	1.1%	0.6%	0.4%	0.3%	0.4%	<sup>12</sup> 0.3%	0.8%	0.6%
18–25 years . . . . .	1988	4.5%	2.2%	2.0%	1.8%	1.5%	<sup>12</sup> 1.2%	1.3%	2.3%
Hispanics 12–17 years . . . . .	1991	1.3%	...	...	1.2%	1.0%	<sup>12</sup> 0.7%	0.8%	0.6%
Hispanics 18–25 years . . . . .	1991	2.7%	...	...	1.8%	2.1%	<sup>12</sup> 2.2%	1.1%	1.0%
Cigarettes									
12–17 years . . . . .	1991	10.8%	...	...	9.6%	9.6%	<sup>12</sup> 18.9%	20.2%	6.0%
<b>3.21* Perception of social disapproval by high school seniors</b>									
Heavy use of alcohol . . . . .	1989	56.4%	59.0%	58.1%	60.8%	58.5%	59.1%	58.0%	70.0%
Occasional use of marijuana . . . . .	1989	71.1%	76.4%	75.8%	79.2%	73.8%	69.1%	65.4%	85.0%
Trying cocaine once or twice . . . . .	1989	88.9%	90.5%	91.8%	92.2%	91.1%	91.4%	91.1%	95.0%
Smoking one or more packs of cigarettes per day . . . . .	1987	74.2%	75.3%	74.0%	76.2%	7.18%	72.4%	69.2%	95.0%
<b>3.22* Perception of harm by high school seniors</b>									
Heavy use of alcohol . . . . .	1989	44.0%	47.1%	48.6%	49.0%	48.3%	46.5%	45.2%	70.0%
Regular use of marijuana . . . . .	1989	77.5%	77.8%	78.6%	76.5%	72.5%	65.0%	60.8%	90.0%
Trying cocaine once or twice . . . . .	1989	54.9%	59.4%	59.4%	56.8%	57.6%	57.2%	53.7%	80.0%
Smoking one or more packs of cigarettes per day . . . . .	1987	68.6%	68.2%	69.4%	69.2%	69.5%	67.6%	65.6%	95.0%
Using smokeless tobacco regularly . . . . .	1987	<sup>a</sup> 30.0%	34.2%	37.4%	35.5%	38.9%	36.6%	33.2%	95.0%
<b>3.23 Tobacco excise tax (percent of retail price)</b>									
Cigarettes . . . . .	1993	31.4%	...	...	...	...	31.0%	31.6%	50%
Smokeless tobacco . . . . .	1993	11.8%	...	...	...	...	13.8%	---	50%
<b>3.24 Treatment for nicotine addiction</b>									
Health plans offering treatment . . . . .	1985	11%	---	---	---	---	---	---	100%

**Table 3. Tobacco objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>3.25* Preemptive clean indoor air laws</b>									
States with laws . . . . .	1995	17	...	...	...	...	...	<sup>10</sup> 18	0
<b>3.26 Number of States with laws banning cigarette vending machines<sup>12</sup></b> . . . . .	1995	<sup>a</sup> 12	...	...	...	...	...	<sup>10</sup> 14	<sup>11</sup> 51

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Estimates for different tribes.

<sup>2</sup>Vietnamese men only.

<sup>3</sup>1988 data.

<sup>4</sup>Among people aged 20–24 with high school education.

<sup>5</sup>Baseline for white females 20–44 years.

<sup>6</sup>NHSDA smokeless tobacco use during past month.

<sup>7</sup>NHSDA show 12.3% (1988) and 11.6% (1991) used smokeless tobacco during the past month among males 18–25 years.

<sup>8</sup>Relative standard error greater than 30 percent, which results in variable estimates.

<sup>9</sup>Middle/junior high and senior high schools only.

<sup>10</sup>1996 data.

<sup>11</sup>Includes the District of Columbia.

<sup>12</sup>Questionnaire modified.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
3.1*, 3.1a	National Vital Statistics System, CDC, NCHS.
3.2*, 3.2a, b	National Vital Statistics System, CDC, NCHS.
3.3	National Vital Statistics System, CDC, NCHS.
3.4*, 3.4a,b,d,e,h	National Health Interview Survey, CDC, NCHS.
3.4c	Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DoD, OASD.
3.4f	Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.
3.4g	Baseline: Local surveys.
3.4i	Baseline and 1991 update: National Health Interview Survey, CDC, NCHS. 1993 Update: National Health and Pregnancy Survey, NIH, NIDA.
3.4j	Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.
3.5, 3.5a	National Health Interview Survey, CDC, NCHS.
3.6	Baseline: Adult Use of Tobacco Survey, CDC, NCCDPHP. Updates: National Health Interview Survey, CDC, NCHS.
3.7, 3.7a	National Health Interview Survey, CDC, NCHS.
3.8*	Baseline: Adult Use of Tobacco Survey, CDC, NCCDPHP. Updates: National Health Interview Survey, CDC, NCHS.
3.9*	For males 18–24 years of age, National Health Interview Survey, CDC, NCHS. For males 12–17 years of age, National Household Survey on Drug Abuse, SAMHSA.
3.9a	Baseline: National Medical Expenditure Survey of American Indians/Alaska Natives, PHS, NCHSR. Updates: National Health Interview Survey, CDC, NCHS.
3.10	Baseline: National Survey of School Districts' Nonsmoking Policies, NSBA, ACS, ALA, and AHA.

<i>Objective number</i>	<i>Data source</i>
3.11*	Updates: School Health Policies and Programs Study, CDC, NCCDPHP. For worksites with 50 or more employees, National Survey of Worksite Health Promotion Activities, OASH, ODPHP. For medium and large companies, Nationwide Survey on Smoking in the Workplace, CDC, OSH; Bureau of National Affairs; American Society for Personnel Administration.
3.12*	1995 Update: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
3.13	Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.
3.14	Baseline: Association of State and Territorial Health Officials Reporting System: Cancer and Cardiovascular Diseases Survey, PHF. Updates: Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.
3.15	Baseline: Association of State and Territorial Health Officials Reporting System: Cancer and Cardiovascular Diseases Survey, PHF. Updates: Association of State and Territorial Health Officials Survey of State Activities on Tobacco Prevention and Control, PHF.
3.16	Federal Trade Commission data reported by Office on Smoking and Health, CDC, NCCDPHP. Baseline for Internists: Wells, et al. Physicians Practice Study, AJPH 76:1009–13. 1986. Baseline for Dentists: Secker-Walker, et al. Statewide Survey of Dentists' Smoking Cessation Advice. JADA 118:37–40. 1989. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP. Updates for dentists: National Survey of Dentists; and Hygienists' Tobacco Control Activities, University of Florida.
3.17*, 3.17a–b	National Vital Statistics System, CDC, NCHS.
3.18*, 3.18a	National Vital Statistics System, CDC, NCHS.
3.19*	National Household Survey on Drug Abuse, SAMHSA, OAS.
3.20*	National Household Survey on Drug Abuse, SAMHSA, OAS.
3.21*	Monitoring the Future (High School Senior Survey), NIH, NIDA.
3.22*	Monitoring the Future (High School Senior Survey), NIH, NIDA.
3.23	"The Tax Burden on Tobacco," The Tobacco Institute, 1995, and Office on Smoking and Health, CDC.
3.24	Gelb BD. Preventive Medicine and Employee Productivity. Harvard Business Review 64(2):12. 1985.
3.25*	Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.
3.26	Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.

\*Duplicate objective. See full text of objective following this table.

# Tobacco Objectives

**3.1\*:** Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 2.1, and 15.1

**3.1a\*:** Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 2.1a, and 15.1a

**3.2\*:** Slow the rise in lung cancer deaths to achieve a rate of no more than 42 per 100,000 people.

*NOTE: In its publications, the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target values for this objective differ from those presented here.*

Duplicate objective: 16.2

**3.2a\*:** Slow the rise in lung cancer deaths among females to no more than 27 per 100,000.

Duplicate objective: 16.2a

**3.2b\*:** Slow the rise in lung cancer deaths among black males to no more than 91 per 100,000.

Duplicate objective: 16.2b

**3.3:** Slow the rise in deaths from chronic obstructive pulmonary disease to achieve a rate of no more than 25 per 100,000 people.

*NOTE: Deaths from chronic obstructive pulmonary disease include deaths due to chronic bronchitis, emphysema, asthma, and other chronic obstructive pulmonary diseases and allied conditions.*

**3.4\*:** Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 18 and older.

Duplicate objectives: 15.12 and 16.6

**3.4a\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among people with a high school education or less aged 20 and older.

Duplicate objectives: 15.12a and 16.6a

**3.4b\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar

workers aged 18 and older.

Duplicate objectives: 15.12b and 16.6b

**3.4c\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 15.12c and 16.6c

**3.4d\*:** Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 18 and older.

Duplicate objectives: 15.12d and 16.6d

**3.4e\*:** Reduce cigarette smoking to a prevalence of no more than 15 percent among Hispanics aged 18 and older.

Duplicate objectives: 15.12e and 16.6e

**3.4f\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 15.12f and 16.6f

**3.4g\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among Southeast Asian men.

Duplicate objectives: 15.12g and 16.6g

**3.4h\*:** Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 15.12h and 16.6h

**3.4i\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 15.12i and 16.6i

**3.4j\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 15.12j and 16.6j

**3.5:** Reduce the initiation of cigarette smoking by children and youth so that no more than 15 percent have become

regular cigarette smokers by age 20.

**3.5a:** Reduce the initiation of cigarette smoking by lower socioeconomic status youth so that no more than 18 percent have become regular cigarette smokers by age 20.

**3.6:** Increase to at least 50 percent the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year.

**3.7:** Increase smoking cessation during pregnancy so that at least 60 percent of women who are cigarette smokers at the time they become pregnant quit smoking early in pregnancy and maintain abstinence for the remainder of their pregnancy.

**3.7a:** Increase smoking cessation during pregnancy so that at least 45 percent of women with less than a high school education who are cigarette smokers at the time they become pregnant quit smoking early in pregnancy and maintain abstinence for the remainder of their pregnancy.

**3.8\*:** Reduce to no more than 20 percent the proportion of children aged 6 and younger who are regularly exposed to tobacco smoke at home.

*NOTE: Regular exposure to tobacco smoke at home is defined as the occurrence of tobacco smoking anywhere in the home on more than three days each week.*

Duplicate objective: 11.17

**3.9\*:** Reduce smokeless tobacco use by males aged 12–24 to a prevalence of no more than 4 percent.

*NOTE: For males aged 12–17, a smokeless tobacco user is someone who has used snuff or chewing tobacco in the preceding month. For males aged 18–24, a smokeless tobacco user is someone who has used either snuff or chewing tobacco at least 20 times and who currently uses snuff or chewing tobacco.*

Duplicate objective: 13.17

**3.9a\*:** Reduce smokeless tobacco use by American Indian and Alaska Native youth to a prevalence of no more than 10 percent.

Duplicate objective: 13.17a

<p><b>3.10:</b> Establish tobacco-free environments and include tobacco-use prevention in the curricula of all elementary, middle, and secondary schools, preferably as part of comprehensive school health education.</p> <p><b>3.11*:</b> Increase to 100 percent the proportion of worksites with a formal smoking policy that prohibits or severely restricts smoking at the workplace.</p> <p>Duplicate objective: 10.18</p> <p><b>3.12*:</b> Enact in 50 States and the District of Columbia comprehensive laws on clean indoor air that prohibit smoking or limit it to separately ventilated areas in the workplace and enclosed public places.</p> <p>Duplicate objective: 10.19</p> <p><b>3.13:</b> Enact in 50 States and the District of Columbia laws prohibiting the sale and distribution of tobacco products to youth younger than age 18. Enforce these laws so that the buy rate in compliance checks conducted in all 50 States and the District of Columbia is no higher than 20 percent.</p> <p><b>3.14:</b> Establish in 50 States and the District of Columbia plans to reduce tobacco use, especially among youth.</p> <p><b>3.15:</b> Eliminate or severely restrict all forms of tobacco product advertising and promotion to which youth younger than age 18 are likely to be exposed.</p> <p><b>3.16:</b> Increase to at least 75 percent the proportion of primary care and oral health care providers who routinely advise cessation and provide assistance and followup for all of their tobacco-using patients.</p> <p><b>3.17*:</b> Reduce deaths due to cancer of the oral cavity and pharynx to no more than 10.5 per 100,000 men aged 45–74 and 4.1 per 100,000 women aged 45–74.</p> <p>Duplicate objectives: 13.7 and 16.17</p> <p><b>3.17a*:</b> Reduce deaths due to cancer of the oral cavity and pharynx to no more than 26.0 per 100,000 among black males aged 45–74.</p> <p>Duplicate objectives: 13.7a and 16.17a</p> <p><b>3.17b*:</b> Reduce deaths due to cancer of the oral cavity and pharynx to no more than 26.0 per</p>	<p>100,000 among black females aged 45–74.</p> <p>Duplicate objectives: 13.7b and 16.17b</p> <p><b>3.18*:</b> Reduce stroke deaths to no more than 20 per 100,000 people.</p> <p>Duplicate objectives: 2.22 and 15.2</p> <p><b>3.18a*:</b> Reduce stroke deaths among blacks to no more than 27 per 100,000.</p> <p>Duplicate objectives: 2.22a and 15.2a</p> <p><b>3.19*:</b> Increase by at least 1 year the average age of first use of cigarettes, alcohol, and marijuana by adolescents aged 12–17.</p> <p>Duplicate objective: 4.5</p> <p><b>3.20*:</b> Reduce the proportion of young people who have used alcohol, marijuana, and cocaine, or cigarettes in the past month as follows:</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="text-align: right;">Substance and age</td> <td style="text-align: right;">2000 target (percent)</td> </tr> <tr> <td colspan="2">Alcohol:</td> </tr> <tr> <td style="padding-left: 20px;">12–17 years</td> <td style="text-align: right;">12.6</td> </tr> <tr> <td style="padding-left: 20px;">18–20 years</td> <td style="text-align: right;">29.0</td> </tr> <tr> <td colspan="2">Marijuana:</td> </tr> <tr> <td style="padding-left: 20px;">12–17 years</td> <td style="text-align: right;">3.2</td> </tr> <tr> <td style="padding-left: 20px;">18–25 years</td> <td style="text-align: right;">7.8</td> </tr> <tr> <td colspan="2">Cocaine:</td> </tr> <tr> <td style="padding-left: 20px;">12–17 years</td> <td style="text-align: right;">0.6</td> </tr> <tr> <td style="padding-left: 20px;">18–25 years</td> <td style="text-align: right;">2.3</td> </tr> <tr> <td style="text-align: right;">Use in past month</td> <td style="text-align: right;">2000 target (percent)</td> </tr> <tr> <td colspan="2">Alcohol:</td> </tr> <tr> <td style="padding-left: 20px;">Hispanic 12–17 years</td> <td style="text-align: right;">12.0</td> </tr> <tr> <td colspan="2">Cocaine:</td> </tr> <tr> <td style="padding-left: 20px;">Hispanic 12–17 years</td> <td style="text-align: right;">0.6</td> </tr> <tr> <td style="padding-left: 20px;">Hispanic 18–25 years</td> <td style="text-align: right;">1.0</td> </tr> <tr> <td colspan="2">Cigarettes:</td> </tr> <tr> <td style="padding-left: 20px;">12–17 years</td> <td style="text-align: right;">6.0</td> </tr> </table> <p><i>NOTE: The targets of this objective are consistent with the goals established by the Office of National Drug Control Policy, Executive Office of the President.</i></p> <p>Duplicate objective: 4.6</p> <p><b>3.21*:</b> Increase the proportion of high school seniors who perceive social disapproval of heavy use of alcohol, occasional use of marijuana, and experimentation with cocaine, or regular use of tobacco, as follows:</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="text-align: right;">Heavy use of alcohol</td> <td style="text-align: right;">2000 target (percent) 70</td> </tr> </table>	Substance and age	2000 target (percent)	Alcohol:		12–17 years	12.6	18–20 years	29.0	Marijuana:		12–17 years	3.2	18–25 years	7.8	Cocaine:		12–17 years	0.6	18–25 years	2.3	Use in past month	2000 target (percent)	Alcohol:		Hispanic 12–17 years	12.0	Cocaine:		Hispanic 12–17 years	0.6	Hispanic 18–25 years	1.0	Cigarettes:		12–17 years	6.0	Heavy use of alcohol	2000 target (percent) 70	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">Occasional use of marijuana</td> <td style="text-align: right;">85</td> </tr> <tr> <td>Trying cocaine once or twice</td> <td style="text-align: right;">95</td> </tr> <tr> <td>Smoking one or more packs of cigarettes per day</td> <td style="text-align: right;">95</td> </tr> </table> <p><i>NOTE: Heavy drinking is defined as having five or more drinks once or twice each weekend. The Monitoring the Future Survey defines regular use of cigarettes as smoking one or more packs daily.</i></p> <p>Duplicate objective: 4.9</p> <p><b>3.22*:</b> Increase the proportion of high school seniors who associate physical or psychological harm with the heavy use of alcohol, occasional use of marijuana, experimentation with cocaine, or regular use of tobacco, as follows:</p> <table border="0" style="margin-left: 20px; width: 100%;"> <tr> <td></td> <td style="text-align: right;">2000 target (percent)</td> </tr> <tr> <td>Heavy use of alcohol</td> <td style="text-align: right;">70</td> </tr> <tr> <td>Regular use of marijuana</td> <td style="text-align: right;">90</td> </tr> <tr> <td>Trying cocaine once or twice</td> <td style="text-align: right;">80</td> </tr> <tr> <td>Smoking one or more packs of cigarettes per day</td> <td style="text-align: right;">95</td> </tr> <tr> <td>Using smokeless tobacco regularly</td> <td style="text-align: right;">95</td> </tr> </table> <p><i>NOTE: Heavy drinking is defined as having five or more drinks once or twice each weekend. The Monitoring the Future Survey defines regular use of cigarettes as smoking one or more packs daily.</i></p> <p>Duplicate objective: 4.10</p> <p><b>3.23:</b> Increase the average (State and Federal combined) tobacco excise tax to at least 50 percent of the average retail price of all cigarettes and smokeless tobacco.</p> <p><b>3.24:</b> Increase to 100 percent the proportion of health plans that offer treatment of nicotine addiction (e.g., tobacco use cessation counseling by health care providers, tobacco use cessation classes, prescriptions for nicotine replacement therapies, and/or other cessation services).</p> <p><b>3.25*:</b> Reduce to zero the number of States that have clean indoor air laws preempting stronger clean indoor air laws on the local level.</p> <p>Duplicate objective: 10.20</p> <p><b>3.26:</b> Enact in 50 States and the District of Columbia laws banning cigarette vending machines except in places inaccessible to minors.</p> <p>* Duplicate objective.</p>	Occasional use of marijuana	85	Trying cocaine once or twice	95	Smoking one or more packs of cigarettes per day	95		2000 target (percent)	Heavy use of alcohol	70	Regular use of marijuana	90	Trying cocaine once or twice	80	Smoking one or more packs of cigarettes per day	95	Using smokeless tobacco regularly	95
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# Priority Area 4 Substance Abuse: Alcohol and Other Drugs

## Background

Large numbers of Americans have misused alcohol and used illicit drugs; these behaviors can have serious health and social consequences. Approximately 11 percent of preventable deaths are related to alcohol and illicit drug use (1). Alcohol is associated with motor vehicle crash fatalities and fatal intentional injuries such as suicides and homicides (2). In 1994, 17,274 motor vehicle crash deaths were reported (3). Heavy alcohol use has increased among young people; 30 percent of high school seniors and 40 percent of college students had five or more drinks on one occasion in the previous 2-week period in 1995 (4,5). Injecting drug users and their sexual partners are at high risk of infection with the human immunodeficiency virus, the eighth leading cause of death in 1995 (3).

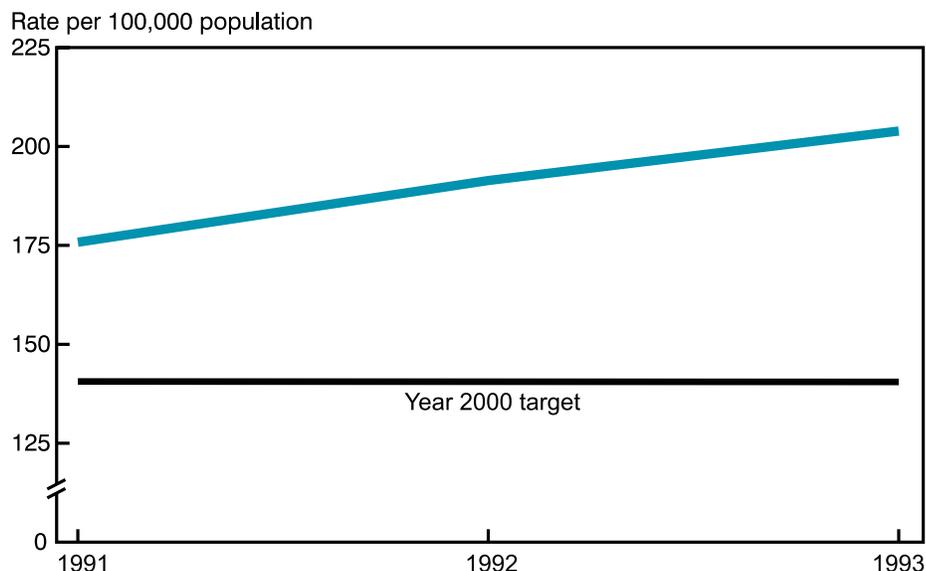
## Data Summary

### Highlights

According to the National Household Survey on Drug Abuse (6), marijuana was the most commonly used illicit drug in 1995. Marijuana use among adolescents has been rising since 1992 (objective 4.6). This upward trend in marijuana use is confined pretty much to adolescents, and is an extremely broad change, showing up among virtually every demographic subgroup. This trend is supported by data for objectives 4.9 and 4.10, which show a continuing decline in the proportion of high school seniors who perceive social disapproval of occasional use of marijuana and physical and psychological harm from regular use of marijuana. Past-month marijuana use among young adults (18–25 years), however, has remained about the same between 1994 and 1995.

In response to this recent trend, the Youth Substance Abuse Prevention Initiative has been mounted by the Secretary of Health and Human Services. Its primary goal is to reverse

**Figure 5. Drug abuse-related emergency room visits: United States, 1991–93, and year 2000 target for objective 4.4**



	1991	1992	1993	Year 2000 target
All persons . . . . .	175.8	191.4	203.9	140.6

SOURCE: Substance Abuse and Mental Health Services Administration, Drug Abuse Warning Network.

the upward trend by the end of 2002, and reduce past-month use of marijuana among adolescents 12–17 years of age by 25 percent, using the 1995 data (8.2 percent) as a baseline.

Alcohol-related motor vehicle crash death rates (4.1) have declined markedly since 1987. These gains are attributed in part to the passage of administrative license revocation legislation in 40 States, including the District of Columbia (objective 4.15), and legislation to lower blood alcohol concentration tolerance levels to 0.08 percent for people 21 years and over in 15 States, and zero tolerance (0.02 percent and lower) for drivers younger than 21 years in 46 States including the District of Columbia (objective 4.18). Other indicators of alcohol misuse, such as cirrhosis deaths (4.2), alcohol use in the past month by adolescents (4.6), heavy drinking by high school seniors and college students (4.7), and per capita alcohol consumption (4.8) have shown improvement from baseline measures. Although the cirrhosis death rate has declined for the total population since

the 1987 baseline, it has increased almost 20 percent among American Indians/Alaska Natives.

### Summary of Progress

Data to assess trends toward the year 2000 targets are available for 16 of 20 objectives in this priority area. Progress toward targets is shown for 10 objectives (4.1, 4.2, 4.7, 4.8, 4.11–4.15, and 4.18). The target for objective 4.12 has been met, and the target for objective 4.14 has been surpassed. Trends are moving away from targets for two objectives (4.3 and 4.4). Mixed results are shown for four objectives (4.5, 4.6, 4.9, and 4.10). New baselines were obtained for objectives 4.12, 4.13, 4.16, and 4.17. Objective 4.12 is met with the baseline; the new data for objective 4.13 more nearly measures the intent of the objective although supplemental data have been available previously. No updates are available for objectives 4.19 and 4.20.

## Data Issues

### Definitions

All deaths attributed to chronic liver disease and cirrhosis (whether or not they are specified as alcohol-related) are tracked in objective 4.2 as an indicator of abusive alcohol consumption. The entries on death certificates are often not specific enough to identify all alcohol-related liver disease deaths. Estimates of the proportion of the total chronic liver disease and cirrhosis deaths that are alcohol-related range from 41 to 95 percent (7).

Data from the National Vital Statistics System are used to track drug-related deaths (objective 4.3). Although the objective discusses drug-related deaths, it is tracked by a category of deaths that is more accurately called “drug-induced deaths.” The category includes deaths whose underlying cause was drug dependence, nondependent use of drugs, and poisoning from drugs, all of which may include medically prescribed drugs. It excludes unintentional injuries, homicides, and other causes indirectly related to drug use. See appendix [table III](#) for a list of specific ICD-9 codes.

### Data Source Description

Alcohol-related motor vehicle crashes (4.1) are tracked using data from the Department of Transportation’s Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System) (FARS). The FARS supplements death certificate data with information on the circumstances of the death to determine whether the death was alcohol related. The National Vital Statistics System does not specify alcohol-related motor vehicle crashes.

The 1985 and 1992 data for objective 4.14 are from the National Surveys of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Worksites were sampled, because different worksites within the same company could have different sets of health promotion activities. Both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update is from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not

include passive methods of health promotion (8,9).

The data on inquiry about alcohol consumption and other drug abuse for objective 4.19 are from Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on inquiry (from PCPS) about work-related risks represent the proportion of providers who routinely queried 81–100 percent of their patients about these risks. The data on counseling refer to the proportion of providers who routinely provided these services to patients who needed the services.

### Comparability of Data Sources

The National Household Survey on Drug Abuse is used to measure objective 4.6 regarding substance use among adolescents and young people. Beginning in 1991, the survey was expanded to include college students living in residence halls. Thus, results for people 18–25 years old for marijuana and cocaine use and people 18–20 years old for alcohol use are not directly comparable to measures from previous years. Additionally, an improved questionnaire and editing procedures were introduced with the 1994 survey, which affects comparability with previous years, especially for cigarette use among adolescents (objective 4.6).

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8. U.S. Department of Health and Human Services. Business Responds to AIDS Benchmark Survey: technical report. Atlanta: Public Health Service, CDC. 1996.
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**Table 4. Substance abuse: Alcohol and other drugs objective status**

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
<b>4.1*</b>	<b>Alcohol-related motor vehicle deaths (per 100,000)</b>	1987	9.8	8.9	7.9	6.9	6.8	6.4	6.5	5.5
	a. American Indian/Alaska Native males	1987	40.4	<sup>1</sup> 35.6	<sup>2</sup> 32.9	---	---	---	---	35.0
	b. People 15–24 years	1987	21.5	18.5	17.2	14.1	13.8	13.1	12.9	12.5
<b>4.2</b>	<b>Cirrhosis deaths (age adjusted per 100,000)</b>	1987	9.2	---	---	8.0	7.9	7.9	7.6	6
	a. Black males	1987	22.6	20.0	17.4	17.2	16.1	15.9	14.7	12
	b. American Indians/Alaska Natives	1987	20.5	19.8	20.4	21.6	21.0	21.4	24.3	10
	c. Hispanics <sup>3</sup>	1990	<sup>a</sup> 14.2	...	13.8	13.5	13.4	13.7	12.9	10
<b>4.3</b>	<b>Drug-related deaths (age adjusted per 100,000)</b>	1987	3.8	3.6	3.8	4.3	4.8	5.0	5.1	3
	a. Blacks	1990	5.7	...	6.6	6.8	8.3	8.6	8.5	3
	b. Hispanics <sup>3</sup>	1990	4.3	...	3.9	5.6	6.4	6.0	6.0	3
<b>4.4</b>	<b>Drug abuse-related emergency room visits (per 100,000)</b>	1991	175.8	...	...	191.4	203.9	225.2	---	140.6
<b>4.5*</b>	<b>Average age of first use (adolescents 12–17 years)</b>									
	Cigarettes	1988	11.6	11.5	11.5	11.7	11.7	12.2	---	12.6
	Alcohol	1988	13.1	12.8	12.6	13.0	12.9	12.8	---	14.1
	Marijuana	1988	13.4	13.4	13.5	13.8	13.9	14.1	---	14.4
<b>4.6*</b>	<b>Use in past month by adolescents and young adults</b>									
	Alcohol									
	12–17 years	1988	25.2%	24.5%	20.3%	15.7%	18.0%	<sup>4</sup> 21.6%	21.1%	12.6%
	18–20 years	1988	57.9%	52.3%	57.0%	50.3%	49.9%	<sup>4</sup> 54.6%	---	29.0%
	Hispanics 12–17 years	1991	22.5%	...	...	16.2%	17.5%	<sup>4</sup> 18.3%	18.7%	12.0%
	Marijuana									
	12–17 years	1988	6.4%	5.2%	4.3%	4.0%	4.9%	<sup>4</sup> 6.0%	8.2%	3.2%
	18–25 years	1988	15.5%	12.7%	13.0%	11.0%	11.1%	<sup>4</sup> 12.1%	12.0%	7.8%
	Cocaine									
	12–17 years	1988	1.1%	0.6%	0.4%	0.3%	0.4%	<sup>4</sup> 0.3%	0.8%	0.6%
	18–25 years	1988	4.5%	2.2%	2.0%	1.8%	1.5%	<sup>4</sup> 1.2%	1.3%	2.3%
	Hispanics 12–17 years	1991	1.3%	...	...	1.2%	1.0%	<sup>4</sup> 0.7%	0.8%	0.6%
	Hispanics 18–25 years	1991	2.7%	...	...	1.8%	2.1%	<sup>4</sup> 2.2%	1.1%	1.0%
	Cigarettes									
	12–17 years	1991	10.8%	...	...	9.6%	9.6%	<sup>4</sup> 18.9%	20.2%	6.0%
<b>4.7</b>	<b>Heavy drinking in past 2 weeks</b>									
	High school seniors	1989	33.0%	32.2%	29.8%	27.9%	27.5%	28.2%	30.0%	28.0%
	College students	1989	41.7%	41.5%	42.8%	41.4%	40.2%	40.0%	40.0%	32.0%
<b>4.8</b>	<b>Alcohol consumption (gallons per capita, people 14 years and over)</b>	1987	2.54	2.46	2.31	2.31	2.25	2.21	---	2.0
<b>4.9*</b>	<b>Perception of social disapproval by high school seniors</b>									
	Heavy use of alcohol	1989	56.4%	59.0%	58.1%	60.8%	58.5%	59.1%	58.0%	70%
	Occasional use of marijuana	1989	71.1%	76.4%	75.8%	79.2%	73.8%	69.1%	65.4%	85%
	Trying cocaine once or twice	1989	88.9%	90.5%	91.8%	92.2%	91.1%	91.4%	91.1%	95%
	Smoking one or more packs of cigarettes per day	1987	74.2%	75.3%	74.0%	76.2%	71.8%	72.4%	69.2%	95%
<b>4.10*</b>	<b>Perception of harm by high school seniors</b>									
	Heavy use of alcohol	1989	44.0%	47.1%	48.6%	49.0%	48.3%	46.5%	45.2%	70%
	Regular use of marijuana	1989	77.5%	77.8%	78.6%	76.5%	72.5%	65.0%	60.8%	90%
	Trying cocaine once or twice	1989	54.9%	59.4%	59.4%	56.8%	57.6%	57.2%	53.7%	80%

**Table 4. Substance abuse: Alcohol and other drugs objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
	Smoking one or more packs of cigarettes per day . . . . .	1987	68.6%	68.2%	69.4%	69.2%	69.5%	67.6%	65.6%	95%
	Using smokeless tobacco regularly . . . . .	1987	<sup>a</sup> 30.0%	34.2%	37.4%	35.5%	38.9%	36.6%	33.2%	95%
<b>4.11</b>	<b>Anabolic steroid use</b>									
	Male high school seniors . . . . .	1989	4.7%	5.0%	3.6%	3.5%	3.5%	3.8%	3.8%	3.0%
<b>4.12</b>	<b>Number of States with access to treatment programs</b>	1996	50	...	...	...	...	...	...	50
<b>4.13</b>	<b>Alcohol and drug education in schools</b>	1996	86%	...	...	...	...	...	...	100%
	Provided students with some instruction . . . . .	1987	63%	---	---	---	---	---	---	100%
	Provided students with counseling . . . . .	1987	39%	---	---	---	---	---	---	100%
	Referred students for clinical assessments . . . . .	1987	23%	---	---	---	---	---	---	100%
	Provided students with instruction in at least one course:									
	Middle/junior and senior high schools . . . . .	...	---	---	---	---	---	90%	---	100%
<b>4.14</b>	<b>Worksite alcohol and drug policies 50 or more employees</b>	...	---	---	---	---	---	---	---	60%
	Alcohol . . . . .	1992	88%	...	...	...	---	---	92%	60%
	Other drugs . . . . .	1992	89%	...	...	...	---	---	96%	60%
<b>4.15</b>	<b>Number of States with administrative license suspension/revocation laws<sup>5</sup></b>	1990	29	...	30	---	35	38	<sup>6</sup> 40	51
<b>4.16</b>	<b>Number of States with policies to reduce minors' access to alcohol</b>	1996	46	...	...	...	...	...	...	50
<b>4.17</b>	<b>Number of States with restrictions on promotion of alcohol to children and adolescents</b>	1996	13	...	...	...	...	...	...	20
<b>4.18</b>	<b>Number of States with blood alcohol concentration tolerance levels</b>									
	Zero tolerance (0.02% or less) for people under 21 years . . . . .	1993	9	...	...	...	...	<sup>5</sup> 21	<sup>5,6</sup> 46	50
	0.08% for people 21 years and over . . . . .	1993	7	...	...	...	...	11	<sup>6</sup> 15	50
<b>4.19</b>	<b>Screening, counseling, and referral by clinicians</b>	...	---	---	---	---	---	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about alcohol consumption (12 years and over)									
	Pediatricians . . . . .	1992	29%	...	...	...	---	---	---	75%
	Nurse practitioners . . . . .	1992	45%	...	...	...	---	---	---	75%
	Obstetricians/gynecologists . . . . .	1992	34%	...	...	...	---	---	---	75%
	Internists . . . . .	1992	63%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	39%	...	...	...	---	---	---	75%
	Inquiry about other drug use									
	Pediatricians . . . . .	1992	28%	...	...	...	---	---	---	75%
	Nurse practitioners . . . . .	1992	43%	...	...	...	---	---	---	75%
	Obstetricians/gynecologists . . . . .	1992	32%	...	...	...	---	---	---	75%
	Internists . . . . .	1992	34%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	23%	...	...	...	---	---	---	75%
	Referral to alcohol treatment									
	Pediatricians . . . . .	1992	26%	...	...	...	---	---	---	75%
	Nurse practitioners . . . . .	1992	19%	...	...	...	---	---	---	75%
	Obstetricians/gynecologists . . . . .	1992	24%	...	...	...	---	---	---	75%
	Internists . . . . .	1992	33%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	28%	...	...	...	---	---	---	75%

**Table 4. Substance abuse: Alcohol and other drugs objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Referral to drug abuse treatment									
Pediatricians . . . . .	1992	32%	...	...	...	---	---	---	75%
Nurse practitioners . . . . .	1992	19%	...	...	...	---	---	---	75%
Obstetricians/gynecologists . . . . .	1992	28%	...	...	...	---	---	---	75%
Internists . . . . .	1992	35%	...	...	...	---	---	---	75%
Family physicians . . . . .	1992	28%	...	...	...	---	---	---	75%
<b>4.20 Number of States with Hospitality Resource Panels . . . . .</b>	1994	8	...	...	...	...	...	---	30

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1988 data.

<sup>2</sup>1989 data.

<sup>3</sup>Excludes data from States lacking an Hispanic-origin item on their death certificate or for which Hispanic origin data were not of sufficient quality. See [Appendix](#).

<sup>4</sup>Questionnaire modified.

<sup>5</sup>Includes the District of Columbia.

<sup>6</sup>1997 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
4.1*, 4.1a–b	Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System), U.S. Department of Transportation, NHTSA.
4.2, 4.2a–c	National Vital Statistics System, CDC, NCHS.
4.3, 4.3a–b	National Vital Statistics System, CDC, NCHS.
4.4	Drug Abuse Warning Network, SAMHSA, OAS.
4.5*	National Household Survey of Drug Abuse, SAMHSA, OAS.
4.6*	National Household Survey of Drug Abuse, SAMHSA, OAS.
4.7	Monitoring the Future (High School Senior Survey), NIH, NIDA.
4.8	Alcohol Epidemiology Data System, NIH, NIAAA.
4.9*	Monitoring the Future (High School Senior Survey), NIH, NIDA.
4.10*	Monitoring the Future (High School Senior Survey), NIH, NIDA.
4.11	Monitoring the Future (High School Senior Survey), NIH, NIDA.
4.12	Substance Abuse Prevention and Treatment Block Grant Applications, SAMHSA, CSAT.
4.13	1996 Baseline: Substance Abuse Prevention and Treatment Block Grant Applications, SAMHSA, CSAT. 1987 Baseline: Report to Congress and the White House on the Nature and Effectiveness of Federal, State, and Local Drug Prevention Education Programs. U.S. Department of Education. 1987. Updates: School Health Policies and Programs Study, CDC, NCCDPHP.
4.14	Baseline: National Survey of Worksite Health Promotion Activities, OASH, ODPHP. Update: Business Responds to AIDS Benchmark Survey, NCHSTP, CDC.
4.15	Baseline: Office of Alcohol and State Programs, NHTSA. Updates: Office of Safety Recommendations. National Transportation Safety Board.
4.16	Substance Abuse Prevention and Treatment Block Grant Applications, SAMHSA, CSAT.
4.17	Substance Abuse Prevention and Treatment Block Grant Applications, SAMHSA, CSAT.

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<i>Objective number</i>	<i>Data source</i>
4.18	Baseline: Office of Alcohol and State Programs, NHTSA. Updates: Office of Safety Recommendations. National Transportation Safety Board.
4.19	Primary Care Provider Surveys, OASH, ODPHP.
4.20	California Coordinating Council on Responsible Beverage Service, National Survey Report.

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\*Duplicate objective. See full text of objective following this table.

# Substance Abuse: Alcohol and Other Drugs Objectives

**4.1\*:** Reduce deaths caused by alcohol-related motor vehicle crashes to no more than 5.5 per 100,000 people.

Duplicate objective: 9.23

**4.1a\*:** Reduce deaths among American Indian and Alaska Native men caused by alcohol-related motor vehicle crashes to no more than 35.0 per 100,000.

Duplicate objective: 9.23a

**4.1b\*:** Reduce deaths among people aged 15–24 caused by alcohol-related motor vehicle crashes to no more than 12.5 per 100,000.

Duplicate objective: 9.23b

**4.2:** Reduce cirrhosis deaths to no more than 6 per 100,000 people.

**4.2a:** Reduce cirrhosis deaths among black men to no more than 12 per 100,000.

**4.2b:** Reduce cirrhosis deaths among American Indians and Alaska Natives to no more than 10 per 100,000.

**4.2c:** Reduce cirrhosis deaths among Hispanics to no more than 10 per 100,000.

**4.3:** Reduce drug-related deaths to no more than 3 per 100,000 people.

**4.3a:** Reduce drug-related deaths among blacks to no more than 3 per 100,000.

**4.3b:** Reduce drug-related deaths among Hispanics to no more than 3 per 100,000.

**4.4:** Reduce drug abuse-related hospital emergency department visits by at least 20 percent.

**4.5\*:** Increase by at least 1 year the average age of first use of cigarettes, alcohol, and marijuana by adolescents aged 12–17.

Duplicate objective: 3.19

**4.6\*:** Reduce the proportion of young people who have used alcohol, marijuana, and cocaine, or cigarettes in

the past month as follows:

Substance and age	2000 target (percent)
Alcohol:	
12–17 years	12.6
18–20 years	29.0
Marijuana:	
12–17 years	3.2
18–25 years	7.8
Cocaine:	
12–17 years	0.6
18–25 years	2.3
Use in past month	2000 target (percent)
Alcohol:	
Hispanic 12–17 years	12.0
Cocaine:	
Hispanic 12–17 years	0.6
Hispanic 18–25 years	1.0
Cigarettes:	
12–17 years	6.0

*NOTE: The targets of this objective are consistent with the goals established by the Office of National Drug Control Policy, Executive Office of the President.*

Duplicate objective: 3.20

**4.7:** Reduce the proportion of high school seniors and college students engaging in recent occasions of heavy drinking of alcoholic beverages to no more than 28 percent of high school seniors and 32 percent of college students.

*NOTE: Recent heavy drinking is defined as having five or more drinks on one occasion in the previous 2-week period as monitored by self-reports.*

**4.8:** Reduce alcohol consumption by people aged 14 and older to an annual average of no more than 2 gallons of ethanol per person.

**4.9\*:** Increase the proportion of high school seniors who perceive social disapproval of heavy use of alcohol, occasional use of marijuana, and experimentation with cocaine, or regular use of tobacco, as follows:

	2000 target (percent)
Heavy use of alcohol	70
Occasional use of marijuana	85
Trying cocaine once or twice	95
Smoking one or more packs of cigarettes per day	95

*NOTE: Heavy drinking is defined as having five or more drinks once or twice each weekend. The Monitoring the*

*Future Survey defines regular use of cigarettes as smoking one or more packs daily.*

Duplicate objective: 3.21

**4.10\*:** Increase the proportion of high school seniors who associate physical or psychological harm with the heavy use of alcohol, occasional use of marijuana, experimentation with cocaine, or regular use of tobacco, as follows:

Heavy use of alcohol	70
Regular use of marijuana	90
Trying cocaine once or twice	80
Smoking one or more packs of cigarettes per day	95
Using smokeless tobacco regularly	95

*NOTE: Heavy drinking is defined as having five or more drinks per occasion in the previous 2-week period. The Monitoring the Future Survey defines regular use of cigarettes as smoking one or more packs daily.*

Duplicate objective: 3.22

**4.11:** Reduce to no more than 3 percent the proportion of male high school seniors who use anabolic steroids.

**4.12:** Establish and monitor in 50 States comprehensive plans to ensure access to alcohol and drug treatment programs for traditionally underserved people.

**4.13:** Provide to children in all school districts and private schools primary and secondary school educational programs on alcohol and other drugs, preferably as part of comprehensive school health education.

**4.14:** Extend adoption of alcohol and drug policies for the work environment to at least 60 percent of worksites with 50 or more employees.

**4.15:** Extend to 50 States administrative driver's license suspension/revocation laws or programs of equal effectiveness for people determined to have been driving under the influence of intoxicants.

**4.16:** Increase to 50 the number of States that have enacted and enforce policies, beyond those in existence in 1989, to reduce access to alcoholic beverages by minors.

**4.17:** Increase to at least 20 the number of States that have enacted statutes to restrict promotion of alcoholic beverages that are focused principally on young audiences.

**4.18:** Extend to 50 States legal blood alcohol concentration tolerance levels of .08 percent for motor vehicle drivers aged 21 and older and zero tolerance (.02 percent and lower) for those younger than age 21.

**4.19:** Increase to at least 75 percent the proportion of primary care providers who screen for alcohol and other drug use problems and provide counseling and referral as needed.

**4.20:** Increase to 30 the number of States with Hospitality Resource Panels (including representatives from State regulatory, public health, and highway safety agencies, law enforcement, insurance associations, alcohol retail and licensed beverage associations) to ensure a process of management and server training and define standards of responsible hospitality.

\*Duplicate objective.

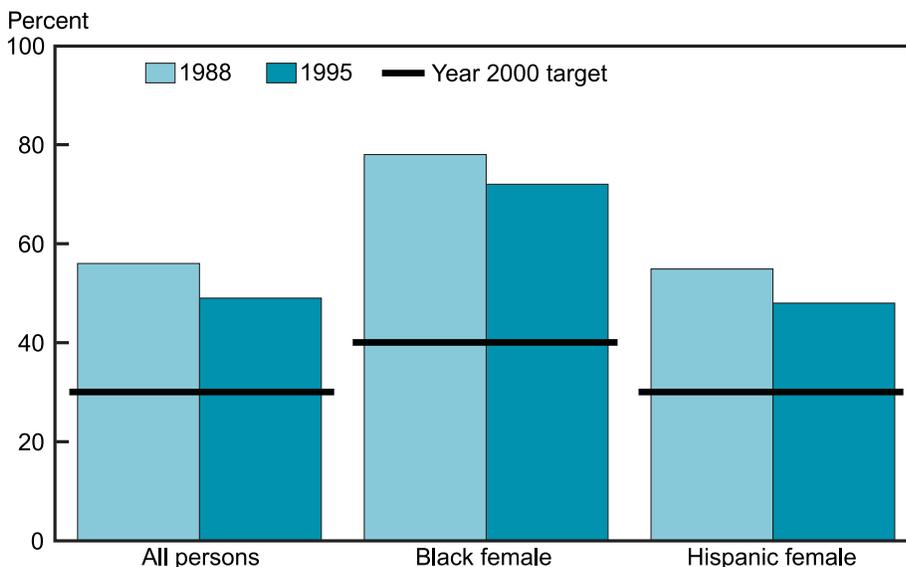
# Priority Area 5 Family Planning

## Background

The formation and growth of families have significant public health and sociopsychological impact on society and individuals (1). Family planning, defined as the process of establishing the preferred number and spacing of children in one's family and selecting the means by which this is achieved, presupposes the importance of both family and planning (2). Problems attendant to poor family planning exact serious health and social costs. Low birthweight (3), high rates of infant mortality (4), and inadequate monetary and family support (5) are some of the consequences of poor family planning. Recent research suggests that educating young potential parents about the financial, welfare, and social costs of pregnancy may improve decision making, which may, in turn, reduce the likelihood of an unintended pregnancy (6).

While these issues highlight concerns about adolescent sexual behavior, it is encouraging to note that data from the National Survey of Family Growth (NSFG) indicate that the proportion of women age 15–19 who had ever had sexual intercourse dropped from 55 percent in 1990 to 50 percent in 1995. The proportions of both males and females age 15 who engaged in sexual intercourse during the past 3 months also have declined. The proportions of females age 15–19 using contraception at first and recent intercourse have also increased between 1988 and 1995 (14 and 6 percent, respectively). Some of these changes in sexual behavior may be related to the rise in HIV infection (nearly 4 percent during the same time period). It should also be noted, however, that a high proportion of schools are providing human sexuality education to teens, which may influence their sexual behavior. Data from the School Health Policies and Programs Study indicate that 80 percent of junior and senior high schools have required classes, including discussion of human sexuality. Nearly half the States require that a course in human sexuality be taught in at least one grade. Of the 12 objectives in this priority area, 5 focus on pregnancy prevention efforts for the teenage population.

**Figure 6. Proportion of all pregnancies that are unintended: United States, 1988, 1995, and year 2000 targets for objective 5.2**



	1988	1995	Year 2000 target
All females . . . . .	56	49	30
Black . . . . .	78	72	40
Hispanic . . . . .	54.9	48	30

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth.

While teenage females receive considerable attention in family planning initiatives, all women of child bearing age require assistance with family planning. Data from the 1995 NSFG show that 49 percent of pregnancies are unintended; this is a decrease of 7 percent since 1988. Use of contraceptives has increased by about 4 percent among this population during the same time period.

## Data Summary

### Highlights

While the pregnancy rate (5.1) for females 15–17 years of age has increased by about 2.5 percent between 1985 and 1992, the abortion rate (a component of the pregnancy rate) has dropped by almost 25 percent during the same time period (see [Data Issues](#)). Live births (another component of pregnancy) increased by 22 percent. The pregnancy rate for girls 10–14 years of age

remained fairly stable during the same time period. Pregnancy rates for nonwhite adolescents and Hispanic adolescents 15–19 years of age increased by 2.4 percent and 29 percent, respectively, between 1985 and 1992.

As mentioned above, between 1988 and 1995, the rate of unintended pregnancy dropped by 7 percent (see [figure 6](#)); similar declines were noted for black and Hispanic women. During the same time period, contraceptive use increased by slightly more than 4 percent for women 15–44 years old.

### Summary of Progress

Seven objectives (5.2, 5.3, 5.5, 5.6, 5.8, 5.11, and 5.12) showed progress toward the year 2000 targets. Progress for objective 5.4 (adolescent postponement of sexual intercourse) was mixed. Fewer 15-year-old males and females and fewer 17-year-old males had engaged in sexual intercourse. The proportion of 17-year-old females had increased very slightly. Objective 5.1

(adolescent pregnancy) continued to move away from the target. Data were not available to update three objectives (5.7, 5.9, and 5.10).

## Data Issues

### Data Source Description

Data for objective 5.1 (adolescent pregnancy) are based on three outcomes of pregnancy: live births, fetal losses, and abortions. Data on live births are collected annually through the National Vital Statistics System. For Hispanic births, it should be noted that the number of States reporting Hispanic origin data in their vital statistics has varied from year to year (see [appendix](#)). Data on fetal losses come from the NSFG, which is conducted at multiyear intervals; the most recent data available are from 1995.

Estimates of the number of abortions come from the Abortion Provider Survey, conducted by the Alan Guttmacher Institute (AGI). This is a biennial survey of clinics and other health facilities that perform abortions. Because the proportion of abortions performed in hospitals has declined and the number performed in physicians' offices has increased, AGI staff estimate that as many as one-half of the office-based abortions may be missed in the survey. The data from the Abortion Provider Survey are adjusted using demographic characteristics of women obtaining abortions (in States that report abortions to CDC) to produce national estimates. The diversity of sources and the variability of reporting intervals complicate tracking of this objective.

The data on inquiry for objective 5.10 (counseling by clinicians) are from the Primary Care Provider Surveys (PCPS) and refer to the proportion of providers who routinely provided counseling to 81–100 percent of their clients. The sample for the study was drawn from the membership rolls of provider organizations for pediatricians, family physicians, obstetricians/gynecologists, nurse practitioners, and internists. Response rates varied from 50–80 percent across provider groups.

### Data Comparability

Baseline and the 1995 data for “all females” for objectives 5.4 (adolescent postponement of sexual intercourse), 5.5

(adolescent abstinence), and 5.6 (contraception use) are from the NSFG. Baseline and the 1995 data for “all males” for objectives 5.4, 5.5, and 5.6 are from the National Survey of Adolescent Males (NSAM). Additional tracking data from the Youth Risk Behavior Survey (YRBS) are also displayed for these objectives, but are not directly comparable to the baselines or targets. The YRBS surveys adolescents in schools and reports data by grade rather than age. The NSFG and the NSAM survey includes adolescents in and not in school. Data from the 1992 National Health Interview Survey (NHIS) suggest that sexual intercourse is more common and condom use is less common among out-of-school youth 14–19 years of age, than among in-school youth in the same age group. However, estimates for in-school youth were very close to those for the total youth population (7).

The baseline for objective 5.8 (human sexuality discussion) came from a one-time study by the Planned Parenthood Foundation and provided data on persons 13–18 years of age who had discussed sexuality with their parents. Updates came from the NHIS, a population-based survey that provided data on persons 10–17 years of age, and the NSFG which provided data on females 18–19 years old. Supplemental data came from the School Health Policies and Programs Study (SHPPS).

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7. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend school: United States, 1992. MMWR 43:129–32. 1994.

**Table 5. Family planning objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>5.1</b>	<b>Adolescent pregnancy</b>									
	Pregnancies (per 1,000) <sup>1</sup>									
	Females 10–14 years .....	...	---	3.3	3.2	3.2	---	---	---	...
	Females 15–17 years .....	1985	71.1	75.5	74.6	72.9	---	---	---	50
	Live births (per 1,000)									
	Females 10–14 years .....	...	---	1.4	1.4	1.4	---	---	---	...
	Females 15–17 years .....	...	---	37.5	38.7	37.8	---	---	---	...
	Abortions (per 1,000)									
	Females 10–14 years .....	...	---	1.5	1.4	1.5	---	---	---	...
	Females 15–17 years .....	...	---	26.5	24.3	23.1	---	---	---	...
	Fetal losses (per 1,000)									
	Females 10–14 years .....	...	---	0.4	0.4	0.4	---	---	---	...
	Females 15–17 years .....	...	---	11.5	11.5	12.0	---	---	---	...
	a. Pregnancies, black adolescents (per 1,000) <sup>1</sup>									
	Females 15–19 years <sup>2</sup> .....	1985	169	177	178	173	---	---	---	120
	Females 15–17 years .....	...	---	158	158	154	---	---	---	...
	Live births (per 1,000)									
	Females 15–19 years <sup>2</sup> .....	1985	85	96	98	95	---	---	---	...
	Females 15–17 years .....	...	...	85	87	84	---	---	---	...
	Abortions (per 1,000)									
	Females 15–19 years <sup>2</sup> .....	1985	71	67	66	64	---	---	---	...
	Females 15–17 years .....	...	---	58	55	54	---	---	---	...
	Fetal losses (per 1,000)									
	Females 15–19 years <sup>2</sup> .....	1985	13	14	14	14	---	---	---	...
	Females 15–17 years .....	...	---	16	16	15	---	---	---	...
	b. Pregnancies, Hispanic adolescents (per 1,000) <sup>1</sup>									
	Females 15–19 years .....	1985	143	170	180	184	---	---	---	105
	Live births (per 1,000)									
	Females 15–19 years <sup>3</sup> .....	...	---	100	107	107	---	---	---	...
	Abortions (per 1,000)									
	Females 15–19 years .....	...	---	39	40	43	---	---	---	...
	Fetal losses (per 1,000)									
	Females 15–19 years .....	...	---	31	33	33	---	---	---	...
<b>5.2</b>	<b>Unintended pregnancy</b>	1988	56.0%	---	---	---	---	---	49.0%	30%
	a. Black females .....	1988	78.0%	---	---	---	---	---	<sup>4</sup> 72.0%	40%
	b. Hispanic females .....	1988	54.9%	---	---	---	---	---	48.0%	30%
<b>5.3</b>	<b>Infertility</b>									
	Married couples with wives 15–44 years .....	1988	7.9%	---	---	---	---	---	7.1%	6.5%
	a. Black couples .....	1988	12.1%	---	---	---	---	---	<sup>4</sup> 10.5%	9%
	b. Hispanic couples .....	1988	12.4%	---	---	---	---	---	7.0%	9%
<b>5.4*</b>	<b>Adolescents engaging in sexual intercourse</b>									
	Adolescents 15 years									
	All females .....	1988	27%	---	---	---	---	---	22%	15%

Table 5. Family planning objective status—Con.

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
	In-school females . . . . .	...	---	35%	36%	---	37%	---	38%	...
	All males . . . . .	1988	33%	---	---	---	---	---	27%	15%
	In-school males . . . . .	...	---	48%	44%	---	45%	---	42%	...
a.	All black males . . . . .	1988	69%	---	---	---	---	---	60%	15%
	In-school non-Hispanic black males . . . . .	...	---	---	79%	---	82%	---	77%	...
	Adolescents 17 years									
	All females . . . . .	1988	50%	---	---	---	---	---	51%	40%
	In-school females . . . . .	...	---	62%	66%	---	66%	---	67%	...
	All males . . . . .	1988	66%	---	---	---	---	---	---	40%
	In-school males . . . . .	...	---	73%	68%	---	68%	---	65%	...
b.	All black males . . . . .	1988	90%	---	---	---	---	---	---	40%
	In-school non-Hispanic black males . . . . .	...	---	---	90%	---	92%	---	88%	...
c.	All black females . . . . .	1988	66%	---	---	---	---	---	<sup>4</sup> 48%	40%
	In-school non-Hispanic black females . . . . .	...	---	---	84%	---	80%	---	75%	...
<b>5.5*</b>	<b>Adolescent abstinence from sexual intercourse for previous 3 months</b>									
	All sexually active females 15–17 years . . . . .	1988	23.6%	---	---	---	---	---	27%	40%
	In-school sexually active females 15–17 years . . . . .	...	---	24%	25%	---	25%	---	23%	...
	All sexually active males 15–17 years . . . . .	1988	33%	---	---	---	---	---	---	40%
	In-school sexually active males 15–17 years . . . . .	...	---	30%	36%	---	33%	---	34%	...
<b>5.6</b>	<b>Contraception use by sexually active adolescents</b>									
	Females 15–19 years									
	First intercourse (All females) . . . . .	1988	63%	---	---	---	---	---	77%	90%
	Recent intercourse (All females) . . . . .	1988	78%	---	---	---	---	---	84%	90%
	Recent intercourse (In-school females) . . . . .	...	---	78%	81%	---	83%	---	83%	90%
	Oral contraceptive and the condom at most recent intercourse (All females) . . . . .	1988	2%	---	---	---	---	---	8%	90%
	High school males									
	Contraception use at most recent intercourse (All males) . . . . .	1990	78%	...	---	---	---	---	---	90%
	Contraception use at most recent intercourse (In-school males) . . . . .	...	---	...	83%	---	84%	---	85%	90%
	Birth control pills and condoms at most recent intercourse (In-school) . . . . .	1990	2.3%	...	3.3%	---	---	---	---	90%
	Males 17–19 years									
	Condom and pill at last intercourse (All males) . . . . .	1988	15%	---	---	---	---	---	---	90%
	Condom and pill use at last intercourse (In-school males) . . . . .	...	---	14%	---	---	---	---	---	90%
<b>5.7</b>	<b>Failure of contraceptive method</b> . . . . .	1988	14%	---	---	---	---	---	---	7%
a.	Black females . . . . .	1988	17.6%	---	---	---	---	---	---	8%
b.	Hispanic females . . . . .	1988	16.4%	---	---	---	---	---	---	8%
<b>5.8</b>	<b>Discussion of human sexuality</b> . . . . .	1994	<sup>5</sup> 89%	...	...	...	...	...	<sup>6</sup> 98%	...
	People 13–18 years who have discussed sexuality with parents . . . . .	1986	66%	---	---	---	---	<sup>7</sup> 73%	<sup>8</sup> 80%	85%
<b>5.9</b>	<b>Family planning counseling</b> . . . . .	1984	60%	---	---	---	---	---	---	90%
<b>5.10*</b>	<b>Age-appropriate preconception counseling by clinicians</b> . . . . .	...	---	---	---	---	---	---	---	60%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about family planning (females, childbearing age)									

**Table 5. Family planning objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
	Pediatricians . . . . .	1992	18%	...	...	...	---	---	---	60%
	Nurse practitioners . . . . .	1992	53%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	48%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	24%	...	...	...	---	---	---	60%
	Family physicians . . . . .	1992	28%	...	...	...	---	---	---	60%
	Counseling about family planning									
	Pediatricians . . . . .	1992	36%	...	...	...	---	---	---	60%
	Nurse practitioners . . . . .	1992	53%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	65%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	26%	...	...	...	---	---	---	60%
	Family physicians . . . . .	1992	36%	...	...	...	---	---	---	60%
<b>5.11*</b>	<b>Clinic services for HIV and other sexually transmitted diseases . . . . .</b>	...	---	---	---	---	---	---	---	50%
	Family planning clinics . . . . .	1989	40%	---	---	---	---	---	---	---
	Title X funded family planning clinics									
	STD testing (excluding HIV) . . . . .	...	---	---	---	---	---	95%	---	...
	STD counseling (excluding HIV) . . . . .	...	---	---	---	---	---	98%	---	...
	STD treatment (excluding HIV) . . . . .	...	---	---	---	---	---	93%	---	...
	Gonorrhea									
	Client testing <sup>9</sup> . . . . .	...	---	97%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	82%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	23%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	60%	---	---	---	---	---	...
	Partner treatment . . . . .	...	---	62%	---	---	---	---	---	...
	Syphilis									
	Client testing <sup>9</sup> . . . . .	...	---	86%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	48%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	29%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	57%	---	---	---	---	---	...
	Partner treatment . . . . .	...	---	40%	---	---	---	---	---	...
	Chlamydia									
	Client testing <sup>9</sup> . . . . .	...	---	66%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	73%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	15%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	29%	---	---	---	---	---	...
	Partner treatment . . . . .	...	---	50%	---	---	---	---	---	...
	HIV									
	Client pretest counseling . . . . .	...	---	66%	---	---	---	81.8%	---	...
	Client testing . . . . .	...	---	60%	---	---	---	73.5%	---	...
<b>5.12</b>	<b>Contraception use</b>									
	Females 15–44 years . . . . .	1982	88.2%	<sup>11</sup> 90.1%	---	---	---	---	92.5%	95%
	a. Black females . . . . .	1982	78.9%	<sup>11</sup> 84.7%	---	---	---	---	89.9%	95%

**Table 5. Family planning objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
b. Females under 100% poverty . . . . .	1982	79.6%	<sup>1</sup> 80.2%	---	---	---	---	92.1%	95%
c. Females 15–19 years under 200% poverty . . . . .	1982	67.4%	<sup>11</sup> 74.9%	---	---	---	---	84.8%	95%

--- Data not available.

. . . Category not applicable.

<sup>1</sup>Pregnancy rates are calculated from the number of births, fetal losses, and abortions.

<sup>2</sup>Nonwhite adolescents.

<sup>3</sup>Excludes data for States lacking a Hispanic item on their birth certificate.

<sup>4</sup>Non-Hispanic black females.

<sup>5</sup>Data represent the proportion of people 10–17 years who had discussed human sexuality with parents or in church or school.

<sup>6</sup>1995 NSFG data are for females 18–19 years who have ever discussed with their parents how pregnancy occurs, birth control methods (BCM), sexually transmitted diseases (STD's), or have had a sex education class on BCM, STD's, safe sex, or abstinence.

<sup>7</sup>Data are from NHIS and represent the proportion of people aged 10–17 who had discussed human sexuality with parents. Proportions for school and church were 76% and 32%, respectively.

<sup>8</sup>1995 data are for females 18–19 years who have ever discussed with a parent birth control methods, STD's, or how pregnancy occurs.

<sup>9</sup>Includes testing at initial visit, at annual visit, or if symptomatic.

<sup>10</sup>By family planning clinic staff via telephone or mail.

<sup>11</sup>1988 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
5.1, 5.1a, b	Abortion Provider Survey, Alan Guttmacher Institute; National Vital Statistics System, CDC, NCHS; National Survey of Family Growth, CDC, NCHS.
5.2, 5.2a, b	National Survey of Family Growth, CDC, NCHS.
5.3, 5.3a, b	National Survey of Family Growth, CDC, NCHS.
5.4*	Baseline and update for all females and all black females: National Survey of Family Growth, CDC, NCHS. Baseline and update for all males and all black males: National Survey of Adolescent Males (NSAM), NIH, NICHD. 1990 Data for all in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Data for all in-school females and males: Youth Risk Behavior Survey (YRBS), CDC, NCCDPHP.
5.5*	Baseline and update for all females: National Survey of Family Growth, CDC, NCHS. Baseline for all males: National Survey of Adolescent Males, NIH, NICHD. 1990 Data for in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Data for in-school females and males: Youth Risk Behavior Survey, CDC, NCCDPHP.
5.6	All females: National Survey of Family Growth, CDC, NCHS; All males: National Survey of Adolescent Males, NIH, NICHD. 1990 Data for in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Data for in-school females and males: Youth Risk Behavior Survey, CDC, NCCDPHP.
5.7, 5.7a, b	National Survey of Family Growth, CDC, NCHS.
5.8	Baseline: Planned Parenthood Federation of America, Inc., 1986. Update: National Health Interview Survey, CDC, NCHS.
5.9	Baseline: Mech EB. Orientation of Pregnancy Counselors toward Adoption. Unpublished. 1984.
5.10*	Primary Care Provider Surveys, OASH, ODPHP.
5.11*	National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA.
5.12, 5.12 a–c	Forrest JD and Sing S. The Sexual and Reproduction Behavior of American Women, 1982–88, Family Planning Perspectives 22(5):206–14, 1990. 1995 Updates: National Survey of Family Growth, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Family Planning Objectives

**5.1:** Reduce pregnancies among females aged 15–17 to no more than 50 per 1,000 adolescents.

*NOTE: For black and Hispanic adolescent females, baseline data are unavailable for those aged 15–17. The targets for these two populations are based on data for females aged 15–19. If more complete data become available, a 35-percent reduction from baseline figures should be used as the target.*

**5.1a:** Reduce pregnancies among black adolescent females aged 15–19 to no more than 120 per 1,000.

**5.1b:** Reduce pregnancies among Hispanic adolescent females aged 15–19 to no more than 105 per 1,000.

**5.2:** Reduce to no more than 30 percent the proportion of all pregnancies that are unintended.

**5.2a:** Reduce to no more than 40 percent the proportion of all pregnancies among black females that are unintended.

**5.2b:** Reduce to no more than 30 percent the proportion of all pregnancies among Hispanic females that are unintended.

**5.3:** Reduce the prevalence of infertility to no more than 6.5 percent.

*NOTE: Infertility is the failure of couples to conceive after 12 months of intercourse without contraception.*

**5.3a:** Reduce the prevalence of infertility among black couples to no more than 9 percent.

**5.3b:** Reduce the prevalence of infertility among Hispanic couples to no more than 9 percent.

**5.4\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 18.3 and 19.9

**5.4a\*:** Reduce the proportion of black males aged 15 years who have engaged in sexual intercourse to no more than 15 percent.

Duplicate objectives: 18.3a and 19.9a

**5.4b\*:** Reduce the proportion of black males aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 18.3b and 19.9b

**5.4c\*:** Reduce the proportion of black females aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 18.3c and 19.9c

**5.5\*:** Increase to at least 40 percent the proportion of ever sexually active adolescents aged 17 and younger who have not had sexual intercourse during the previous 3 months.

Duplicate objectives: 18.15 and 19.16

**5.6:** Increase to at least 90 percent the proportion of sexually active, unmarried people aged 15–24 who use contraception, especially combined method contraception that both effectively prevents pregnancy and provides barrier protection against disease.

**5.7:** Increase the effectiveness with which family planning methods are used, as measured by a decrease to no more than 7 percent in the proportion of women experiencing pregnancy despite use of a contraceptive method.

**5.7a:** Increase the effectiveness with which family planning methods are used, as measured by a decrease to no more than 8 percent in the proportion of black females experiencing pregnancy in the last year despite use of a contraceptive method.

**5.7b:** Increase the effectiveness with which family planning methods are used, as measured by a decrease to no more than 8 percent in the proportion of Hispanic females experiencing pregnancy in the last year despite use of a contraceptive method.

**5.8:** Increase to at least 85 percent the proportion of people aged 10–18 who have discussed human sexuality, including correct anatomical names, sexual abuse, and values surrounding sexuality, with their parents and/or have received information through another

parentally endorsed source, such as youth, school, or religious programs.

**5.9:** Increase to at least 90 percent the proportion of family planning counselors who offer accurate information about all options, including prenatal care and delivery, infant care, foster care, or adoption and pregnancy termination to their patients with unintended pregnancies.

**5.10\*:** Increase to at least 60 percent the proportion of primary care providers who provide age-appropriate preconception care and counseling.

Duplicate objective: 14.12

**5.11\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that provide on site primary prevention and provide or refer for secondary prevention services for HIV infection and bacterial sexually transmitted diseases (gonorrhea, syphilis, and Chlamydia) to high-risk individuals and their sex or needle-sharing partners.

Duplicate objectives: 18.13 and 19.11

**5.12:** Increase to at least 95 percent the proportion of all females aged 15–44 at risk of unintended pregnancy who use contraception.

**5.12a:** Increase to at least 95 percent the proportion of black females aged 15–44 at risk of unintended pregnancy who use contraception.

**5.12b:** Increase to at least 95 percent the proportion of females aged 15–44 with income less than 100 percent of poverty at risk of unintended pregnancy who use contraception.

**5.12c:** Increase to at least 95 percent the proportion of females aged 15–19 years under 200 percent of poverty at risk of unintended pregnancy who use contraception.

\*Duplicate objective.

# Priority Area 6 Mental Health and Mental Disorders

## Background

Mental health refers to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Mental health and mental disorders can be affected by numerous conditions ranging from biologic and genetic vulnerabilities, to acute or chronic physical dysfunction, to environmental conditions and stresses. Addressing the range of these contingencies requires a balance of minimizing risk factors and maximizing protective factors and combining prevention with treatment (1). This balance will become increasingly important with the growth of managed care and increased efforts to contain costs (2).

In 1992, nearly 3 in 10 adults in the United States had some type of mental or substance abuse disorder in the past year; more than half of these suffered from a mental disorder without comorbid substance abuse (3). In 1990, more than 5 million people were admitted to mental health facilities for treatment; about 62 percent were treated on an outpatient basis in hospitals, mental health clinics, and other facilities (4). Roughly 48 percent of those admitted for inpatient treatment and 35 percent of those admitted as outpatients have their treatment paid for by public insurance (5). In 1990, \$23.6 billion in public money was spent to provide treatment services for mental illness (6).

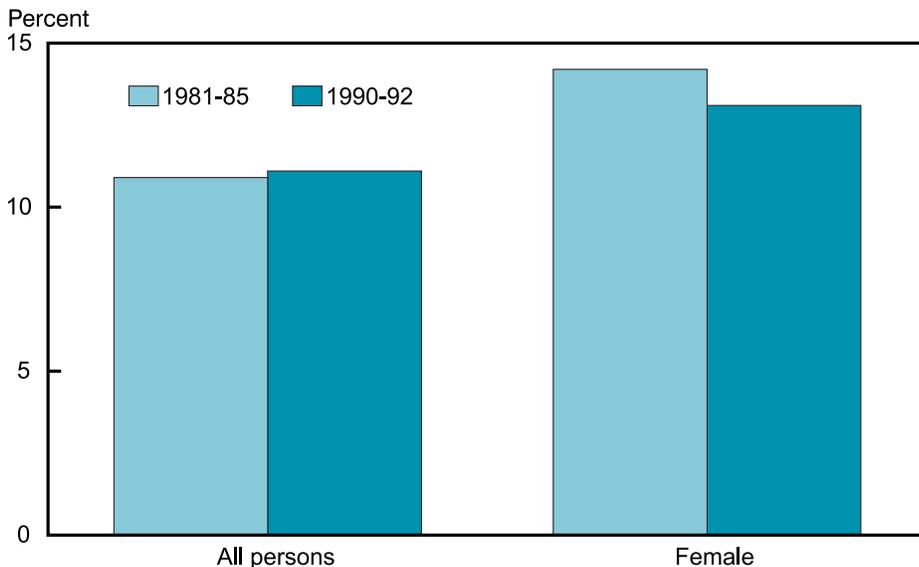
Prevention of mental illness and its consequences is a complex undertaking, but it has recently received additional impetus through advances in research and focus from the professional community. The Institute of Medicine's report (7) calls for universal, selective, and indicated prevention efforts. The 15 objectives in this priority area support efforts to address these initiatives.

## Data Summary

### Highlights

Both the proportion of people using community support services for severe

**Figure 7. Proportion of adults with 1-year prevalence of depression: United States, 1981–85 and 1990–92 for objective 6.15**



	1981–85	1990–92
All persons . . . . .	10.9	11.1
Female . . . . .	14.2	13.1

SOURCE: National Institutes of Health, National Institute of Mental Health, Epidemiologic Catchment Area Study, 1981–85. National Institutes of Health, National Institute of Mental Health, Comorbidity Survey, 1990–92.

mental disorders (6.6) and the proportion of people seeking help for emotional problems (6.8) have increased from baseline levels. However, the proportion of people not taking steps to control stress (6.9) has also increased.

In the context of these data on service utilization among persons with problems related to mental health, it is interesting to note that all 50 States are served by two national mental health clearinghouses (6.12) that have a mission to increase public awareness and access to mental health services.

The 1995 data show a suicide rate (6.1) of 11.2 per 100,000 population; this is a 4.3 percent decline from the 1987 baseline level. Adolescent suicide rates have fluctuated over the past 5 years, but are higher than the 1987 baseline. Injurious suicide attempts by adolescents (6.2) have increased.

## Summary of Progress

Two objectives (6.6 and 6.12) met and five objectives (6.1, 6.4, 6.5, 6.8, and 6.11) show progress toward the year 2000 targets. Five objectives (6.2, 6.7, 6.9, 6.10, and 6.15) have moved away

from the year 2000 targets. Three objectives (6.3, 6.13, and 6.14) have no data beyond the baseline.

## Data Issues

### Definitions

Objective 6.1 (suicide) is monitored using data from the National Vital Statistics System (NVSS). The data are compiled from death certificates submitted by the States. Differentiating suicide deaths from accidental deaths relies heavily on judgment by the medical legal officer (for example, coroner or medical examiner). A key element of this determination is the establishment of intent by the deceased. This determination may be based on information about prior suicide attempts, a statement or note by the deceased indicating their intent to commit suicide, or other clinical information (for example, serious mental illness) (8).

Objective 6.2 (adolescent suicide attempts) is monitored with data from the Youth Risk Behavior Survey (YRBS), a school-based survey. Suicide

attempts are self-reported and are limited to those that required medical attention in the last 12 months. Data from the 1992 National Health Interview Survey (NHIS) suggest that other types of violent behavior are higher among youth (14–19 years of age) not in school than among those in school; the data for in-school youth were very close to estimates for the total population. The exclusion of adolescents not in school in the data used to monitor objective 6.2 may underestimate the actual number of youth suicide attempts (9). Reliance on self-report of suicide attempts that resulted in hospitalization without validation from medical sources may also affect the accuracy of estimates. However, a recent study by CDC indicates that estimates among in-school youth are highly reliable (10).

The wording and baseline data for objective 6.10 (suicide prevention in jails) were established with States as the organizational level for monitoring and implementing suicide prevention protocols in jails. Jails are usually under the jurisdiction of counties or municipalities. State level data on jails are limited; the alternative data track the objective using jails as the unit of analysis. Data from the National Census of Jails, conducted by the Bureau of Justice Statistics, are only available for 1993 but later updates are expected. Additional data are from the American Correctional Association's (ACA) list of jails, which are ACA-accredited; their accreditation requires that suicide prevention policies and training be implemented in the jail. However, not all jails seek ACA accreditation; this selection bias suggests that these data may not be nationally representative.

Data for objective 6.11 (worksite stress management programs) are from the National Survey of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Some of the businesses surveyed had multiple worksites with different health promotion activities. Additionally, both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities.

Data for objectives 6.13 (clinical review of childhood mental functions) and 6.14 (clinical review of adult mental functions) are from the Primary Care Providers Surveys (PCPS). The sample for the survey was drawn from the membership rolls of provider

organizations for family physicians, nurse practitioners, internists, obstetricians/gynecologists, and pediatricians (for 6.14). Response rates ranged from 50–80 percent. The data on assessment and screening represent the proportion of providers who routinely queried 81–100 percent of their patients about a particular type of mental function. Data on treatment and referral refer to the proportion of providers who provided or referred patients who needed the services. The basis for this treatment or referral may be independent of the assessment made by the clinician.

### Comparability of Data Sources

Baselines for objectives 6.4 (adult mental disorders), 6.7 (treatment for depression), and 6.15 (prevalence of depression) came from the National Institute for Mental Health (NIMH) Epidemiological Catchment Area (ECA) studies conducted in five metropolitan areas during the early 1980's. This household survey used the Diagnostic Interview Schedule (DIS) and the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) criteria to estimate 1-month prevalences, which were used to set the baseline and target. The updates for these objectives come from the National Comorbidity Survey (NCS), which was a national survey that collected prevalence data using the Composite International Diagnostic Interview (CIDI) and DSM-III-R criteria. To monitor the objectives, the ECA data were reanalyzed to produce 1-year prevalence estimates and the NCS data were recoded to reflect DSM-III categories.

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**Table 6. Mental health and mental disorders objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>6.1*</b>	<b>Suicide (age adjusted per 100,000)</b> . . . . .	1987	11.7	11.5	11.4	11.1	11.3	11.2	11.2	10.5
	a. Adolescents 15–19 years (per 100,000) . . . . .	1987	10.2	11.1	11.0	10.8	10.9	11.1	10.5	8.2
	b. Males 20–34 years (per 100,000) . . . . .	1987	25.2	25.1	25.1	24.5	25.5	26.5	26.3	21.4
	c. White males 65 years and over (per 100,000) . . . . .	1987	46.7	44.4	42.7	41.0	40.9	38.9	38.7	39.2
	d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	1987	20.1	21.0	19.2	17.9	18.7	23.8	20.1	17.0
<b>6.2*</b>	<b>Suicide attempts among adolescents 14–17 years</b> . . . . .	1990	2.1%	...	1.7%	---	2.7%	---	2.8%	1.8%
	a. Females 14–17 years . . . . .	1991	2.5%	...	...	---	3.8%	---	3.4%	2.0%
<b>6.3</b>	<b>Mental disorders</b>									
	Children and adolescents 18 years and under . . . . .	1988	20%	---	---	---	---	---	---	17%
<b>6.4</b>	<b>Mental disorders among adults (1-month prevalence)</b> . . . . .	1981–85	12.6%	---	---	---	---	---	---	10.7%
	Mental disorders among adults (1-year prevalence) . . . . .	...	<sup>1</sup> 20.4%	---	<sup>2</sup> 16.0%	---	---	---	---	...
<b>6.5</b>	<b>Adverse health effects from stress</b> . . . . .	1984	44.2%	40.6%	---	---	39.2%	---	---	35%
	a. People with disabilities . . . . .	1984	53.5%	54.2%	---	---	54.9%	---	---	40%
<b>6.6</b>	<b>Use of community support among people with severe mental disorders</b> . . . . .	1986	15%	---	---	---	---	<sup>3</sup> 34.6%	---	30%
<b>6.7</b>	<b>Treatment for depression (6-month services)</b> . . . . .	1981–85	31%	---	---	---	---	---	---	54%
	Treatment for depression (1-year services) . . . . .	...	---	<sup>1</sup> 34.7%	---	<sup>2</sup> 34.2%	---	---	---	...
<b>6.8</b>	<b>Seeking help with emotional/personal problems</b> . . . . .	1985	11.1%	12.5%	---	---	14.3%	---	---	20%
	a. People with disabilities . . . . .	1985	14.7%	17.0%	---	---	19.8%	---	---	30%
<b>6.9</b>	<b>Not taking steps to control stress</b> . . . . .	1985	24%	28%	34%	35%	---	35%	---	5%
<b>6.10*</b>	<b>Number of States with suicide prevention in jails</b> . . . . .	1992	<sup>a</sup> 2	...	...	...	---	<sup>4</sup> 2	<sup>5</sup> 1	50
	Proportion of jails with suicide policies . . . . .	...	---	---	---	---	79.5%	---	---	...
	Proportion of jails with ACA accreditation . . . . .	...	---	1%	1%	1%	2%	2%	2%	...
<b>6.11</b>	<b>Worksite stress management programs</b> . . . . .	1985	26.6%	---	---	37.0%	---	---	---	40%
<b>6.12</b>	<b>Number of States with mutual help clearinghouses</b> . . . . .	1995	8	...	...	...	...	...	...	50
	Number of Federal clearinghouses . . . . .	1995	2	...	...	...	...	...	...	...
	Number of States served by Federal clearinghouses . . . . .	...	---	50	50	50	50	50	50	...
<b>6.13</b>	<b>Clinician review of patients' mental functioning</b> . . . . .	...	---	---	---	---	---	---	---	60%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about cognitive functioning									
	Nurse practitioners . . . . .	1992	35%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	9%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	18%	...	...	...	---	---	---	60%
	Family physicians . . . . .	1992	7%	...	...	...	---	---	---	60%
	Inquiry about emotional/behavioral functioning									
	Nurse practitioners . . . . .	1992	40%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	12%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	25%	...	...	...	---	---	---	60%
	Family physicians . . . . .	1992	13%	...	...	...	---	---	---	60%
	Treatment/referral for cognitive problems									
	Nurse practitioners . . . . .	1992	20%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	20%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	27%	...	...	...	---	---	---	60%

**Table 6. Mental health and mental disorders objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
	Family physicians . . . . .	1992	21%	...	...	...	---	---	---	60%
	Treatment/referral for emotional/behavioral problems									
	Nurse practitioners . . . . .	1992	23%	...	...	...	---	---	---	60%
	Obstetricians/gynecologists . . . . .	1992	23%	...	...	...	---	---	---	60%
	Internists . . . . .	1992	35%	...	...	...	---	---	---	60%
	Family physicians . . . . .	1992	27%	...	...	...	---	---	---	60%
<b>6.14</b>	<b>Clinician review of childrens' mental functioning</b> . . . . .	...	---	---	---	---	---	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about cognitive functioning									
	Pediatricians . . . . .	1992	62%	...	...	...	---	---	---	75%
	Inquiry about emotional/behavioral functioning									
	Pediatricians . . . . .	1992	47%	...	...	...	---	---	---	75%
	Treatment/referral for cognitive problems									
	Pediatricians . . . . .	1992	51%	...	...	...	---	---	---	75%
	Treatment/referral for emotional/behavioral problems									
	Pediatricians . . . . .	1992	45%	...	...	...	---	---	---	75%
	Inquiry about parent-child relationship									
	Pediatricians . . . . .	1992	55%	...	...	...	---	---	---	75%
	Nurse practitioners . . . . .	1992	55%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	36%	...	...	...	---	---	---	75%
	Treatment/referral for parent-child interaction problems									
	Pediatricians . . . . .	1992	34%	...	...	...	---	---	---	75%
	Nurse practitioners . . . . .	1992	24%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	29%	...	...	...	---	---	---	75%
<b>6.15</b>	<b>Prevalence of depression (1-month prevalence)</b> . . . . .	1981–85	5.1%	---	---	---	---	---	---	4.3%
	Prevalence of depression (1-year prevalence) . . . . .	...	---	<sup>1</sup> 10.9%	---	<sup>2</sup> 11.1%	---	---	---	...
	a. Women (1-month prevalence) . . . . .	1981–85	6.6%	---	---	---	---	---	---	5.5%
	Women (1-year prevalence) . . . . .	...	---	<sup>1</sup> 14.2%	---	<sup>2</sup> 13.1%	---	---	---	...

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1981–85 data. Data are for noninstitutionalized, nonrural, white, black, or Hispanic persons 18–54 years.

<sup>2</sup>1990–92 data. Data are for noninstitutionalized, nonrural, white, black, or Hispanic persons 18–54 years.

<sup>3</sup>Estimate represents the proportion of people with mental disorders (excluding substance disorders only) in the past year which interfered with their ability to work or find work and who sought help from community mental health services.

<sup>4</sup>1995 data.

<sup>5</sup>1996 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
6.1*, 6.1a–d	National Vital Statistics System, CDC, NCHS.
6.2*	1990 Baseline: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
6.2a	Youth Risk Behavior Survey, CDC, NCCDPHP.
6.3	Baseline (revised): Bird HR. Estimates of the prevalence of childhood maladjustment in a community survey in Puerto Rico. Archives of Gen Psychiatry 45:1120–26. 1988. Costello EJ, et al. Psychiatric disorders in pediatric primary care: Prevalence risk factors. Archives of Gen Psychiatry 45:1107–16. 1988.
6.4	Baseline: Epidemiologic Catchment Area Study, NIH, NIMH. Update: National Comorbidity Survey, University of Michigan.
6.5, 6.5a	National Health Interview Survey, CDC, NCHS.
6.6	Baseline: National Institute of Mental Health Community Support Program Client Followup Study, SAMHSA.
6.7	Baseline: Epidemiologic Catchment Area Study, NIH, NIMH. Update: National Comorbidity Survey, University of Michigan.
6.8, 6.8a	National Health Interview Survey, CDC, NCHS.
6.9	Prevention Index, Rodale Press, Inc.
6.10*	Baseline and updates (States): National Study of Jails, National Center on Institutions and Alternatives, CDC, NCIPC. Baseline and update (ACA accreditation): American Correctional Association. Baseline (suicide policies): National Census of Jails, DOJ, BJS.
6.11	National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
6.12	Baseline: SAMHSA. Updates: National Network of Mutual Help Centers.
6.13	Primary Care Provider Surveys, OASH, ODPHP.
6.14	Primary Care Provider Surveys, OASH, ODPHP.
6.15	Baseline: Epidemiologic Catchment Area Study, NIH, NIMH. Update: National Comorbidity Survey, University of Michigan.

\*Duplicate objective. See full text of objective following this table.

# Mental Health and Mental Disorders Objectives

**6.1\*:** Reduce suicides to no more than 10.5 per 100,000 people.

Duplicate objective: 7.2

**6.1a\*:** Reduce suicides among youth aged 15–19 to no more than 8.2 per 100,000.

Duplicate objective: 7.2a

**6.1b\*:** Reduce suicides among men aged 20–34 to no more than 21.4 per 100,000.

Duplicate objective: 7.2b

**6.1c\*:** Reduce suicides among white men aged 65 and older to no more than 39.2 per 100,000.

Duplicate objective: 7.2c

**6.1d\*:** Reduce suicides among American Indian and Alaska Native men to no more than 17.0 per 100,000.

Duplicate objective: 7.2d

**6.2\*:** Reduce to 1.8 percent the incidence of injurious suicide attempts among adolescents aged 14–17.

Duplicate objective: 7.8

*NOTE: Data are limited to those suicide attempts that result in hospitalization and are based on self-reports.*

**6.2a\*:** Reduce to 2.0 percent the incidence of injurious suicide attempts among female adolescents aged 14–17.

Duplicate objective: 7.8a

**6.3:** Reduce to less than 17 percent the prevalence of mental disorders among children and adolescents.

**6.4:** Reduce the prevalence of mental disorders (exclusive of substance abuse) among adults living in the community to less than 10.7 percent.

**6.5:** Reduce to less than 35 percent the proportion of people aged 18 and older who report adverse health effects from stress within the past year.

*NOTE: For this objective, people with disabilities are people who report any limitation in activity due to chronic conditions.*

**6.5a:** Reduce to less than 40 percent the proportion of people with disabilities who report adverse health effects from stress within the past year.

**6.6:** Increase to at least 30 percent the proportion of people aged 18 and older with severe, persistent mental disorders who use community support programs.

**6.7:** Increase to at least 54 percent the proportion of people with major depressive disorders who obtain treatment.

**6.8:** Increase to at least 20 percent the proportion of people aged 18 and older who seek help in coping with personal and emotional problems.

**6.8a:** Increase to at least 30 percent the proportion of people with disabilities who seek help in coping with personal and emotional problems.

**6.9:** Decrease to no more than 5 percent the proportion of people aged 18 and older who report experiencing significant levels of stress who do not take steps to reduce or control their stress.

**6.10\*:** Increase to 50 the number of States with officially established protocols that engage mental health, alcohol and drug, and public health authorities with corrections authorities to facilitate identification and appropriate intervention to prevent suicide by jail inmates.

Duplicate objective: 7.18

**6.11:** Increase to at least 40 percent the proportion of worksites employing 50 or more people that provide programs to reduce employee stress.

**6.12:** Establish a network to facilitate access to mutual self-help activities, resources, and information by people and their family members who are experiencing emotional distress resulting from mental or physical illness.

**6.13:** Increase to at least 60 percent the proportion of primary care providers who routinely review with patients their patients' cognitive, emotional, and behavioral functioning and the resources available to deal with any problems that are identified.

**6.14:** Increase to at least 75 percent the proportion of providers of primary care for children who include assessment of

cognitive, emotional, and parent-child functioning with appropriate counseling, referral, and followup, in their clinical practices.

**6.15:** Reduce the prevalence of depressive (affective) disorders among adults living in the community to less than 4.3 percent.

**6.15a:** Reduce the prevalence of depressive (affective) disorders among women living in the community to less than 5.5 percent.

\*Duplicate objective.

# Priority Area 7 Violent and Abusive Behavior

## Background

Violent and abusive behaviors continue to be major causes of death, injury, and stress in the United States. Suicide and homicide have resulted in over 50,000 deaths annually between 1985 and 1995 (1) and victims of violence have exceeded 2 million persons annually (2). Violence produces extensive physical costs and emotional consequences for society (3). The widespread nature of these consequences may indicate that interpersonal violence has become a common part of social interaction in many domestic settings (4). It may also become a mode of behavior adopted by future generations raised in such settings (5). Firearms play a major role in both interpersonal and self-directed violence, especially among younger victims (6). Handguns are the primary means for the majority of this violence; they are used in about 75 percent of all firearm crimes and firearm suicides (7,8). While laws limiting access to firearms and mandatory sentences for felony firearm use appear to reduce and/or prevent both self-directed and interpersonal violent injuries (9,10), a combined effort by law enforcement and public health services will be necessary to effectively address the problem of violence.

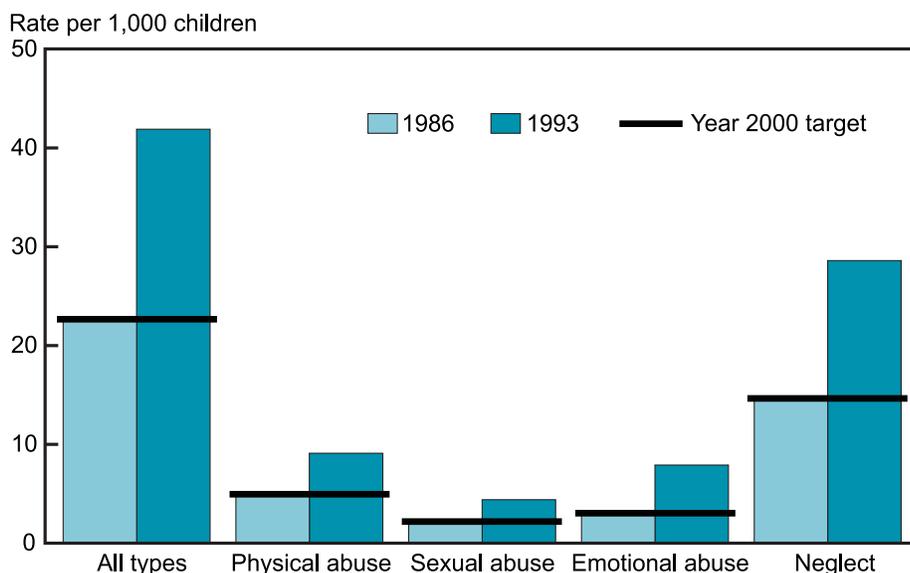
Nonlethal assaults against domestic partners and children have been increasing (11,12). One innovative approach to coping with partner abuse has recruited assistance from public advertising firms to increase the awareness of and attention to coping with domestic violence (13).

## Data Summary

### Highlights

The 1995 homicide rate of 9.2 per 100,000 population (7.1) reached its lowest level since 1987 and is 14.8 percent below the decade high of 10.8 in 1991. The homicide rate for black males also declined, but also remains above the baseline. In 1995, suicides (7.2) and firearm-related deaths (7.3) dropped 4.3 and 4.7 percent,

**Figure 8. Incidence of types of maltreatment of children under 18 years: United States, 1986, 1993, and year 2000 targets for objective 7.4**



	1986	1993	Year 2000 target
All types . . . . .	22.6	41.9	22.6
Physical abuse . . . . .	4.9	9.1	4.9
Sexual abuse . . . . .	2.1	4.4	2.1
Emotional abuse . . . . .	3.0	7.9	3.0
Neglect . . . . .	14.6	28.6	14.6

SOURCE: Office of Human Development, National Center on Child Abuse and Neglect, National Incidence of Child Abuse and Neglect Survey.

respectively, below their 1987 baseline levels. Child abuse and neglect (7.4), however, increased by more than 85 percent from the baseline (see figure 8), despite a 45-percent increase in the number of States that have child death review systems (7.13).

### Summary of Progress

Of the 19 objectives in this priority area, 7 (7.2, 7.3, 7.9, 7.10, 7.13, 7.16, and 7.19) progressed toward the year 2000 targets. The updates for 7.10 (weapon carrying), 7.13 (States with child death review systems), and the baseline established for 7.16 (conflict resolution in schools) surpassed their respective year 2000 targets. The data for eight objectives (7.1, 7.4, 7.5, 7.6, 7.7, 7.8, 7.15, and 7.18) indicate movement away from the year 2000 target. There was no update beyond the baseline for objective 7.11 (firearm storage). Three objectives (7.12, 7.14, and 7.17) remain without baselines.

## Data Issues

### Definitions

Objective 7.1 (homicide) is monitored using data from the National Vital Statistics System (NVSS) and excludes homicides attributed to legal intervention. It should be noted that the number of States reporting Hispanic origin data in their vital statistics has varied from year to year (see appendix). The data on spousal homicide (7.1b) come from the Federal Bureau of Investigation; the 1993 and 1994 data are for spouses age 15 years and over and are not directly comparable to previous data.

Objective 7.2 (suicide deaths) is monitored using data from the NVSS. The data are compiled from death certificates submitted by the States. Differentiating suicide deaths from accidental deaths relies heavily on judgment by the medical legal officer

(for example, coroner or medical examiner). A key element of this determination is the establishment of intent by the deceased. This determination may be based on information about prior suicide attempts, a statement or note by the deceased indicating their intent to commit suicide, or other clinical information (for example, serious mental illness) (14).

The baseline and target for objective 7.5 (partner abuse) were established using the National Institute of Mental Health's survey of family violence, which measured incidents of violence among couples. This survey will not be repeated so the objective will be monitored using data from the Bureau of Justice National Crime Victimization Survey that is tracking violence between intimates (for example, spouses, ex-spouses, boyfriends). The data used to track the objective report incidents per 1,000 women, which reflects the intent of the objective.

Data for objectives 7.6 (assault injuries) and 7.7 (rape and attempted rape) come from the National Crime Victimization Survey, which provides self-reported victimizations. The numbers of offenses reported in this survey generally exceed those reported to police and other law enforcement agencies. However, because of their personal nature, some offenses such as rape are underreported in the crime survey (15). The data for these objectives include injuries from completed rapes, attempted and completed robberies with injury, and completed aggravated and simple assaults with injury. In 1992, this survey was redesigned; the revised questions elicit higher rates for rape, other sex offenses, and crimes committed by relatives and acquaintances.

Data for objectives 7.8 (adolescent suicide attempts), 7.9 (physical fighting among adolescents), and 7.10 (weapon carrying) come from the school-based Youth Risk Behavior Survey (YRBS) and rely on student self-report. Reported suicide attempts are limited to those that occurred in the last 12 months and required medical attention. Data from the 1992 NHIS indicate higher levels of weapon carrying and fighting among youth (14–19 years of age) not in school than among youth the same age in school, although the estimates for in-school youth were very close to the estimates for the total population (16).

The NHIS did not include questions on suicide attempts; the exclusion of adolescents not in school in the YRBS data used to provide ongoing monitoring for objective 7.8 may produce underestimates of suicide attempts. The reliance on self-report without external validation of weapon carrying, suicide attempts, and fighting may affect the validity of these estimates, although a recent study by CDC indicated that the results are highly reliable (17).

Objective 7.11 (inappropriate firearm storage) is measured using data from the NHIS. The numerator is the number of people who have a firearm in or around the house that is stored loaded or unlocked. The denominator is the number of people who report having a firearm in or around the house. Data on the proportion of the total population with unlocked or loaded guns are also footnoted in the summary table.

The wording and baseline data for objective 7.18 (suicide prevention in jails) were established with States as the organizational level for monitoring and implementing suicide prevention protocols in jails. Jails are usually under the jurisdiction of counties or municipalities. State-level data on jails are limited; the alternative data track the objective using jails as the unit of analysis. Data from the National Census of Jails, conducted by the Bureau of Justice Statistics, were only available for 1993 but subsequent updates are expected. Additional data are from the American Correctional Association's (ACA) list of jails that are ACA-accredited; their accreditation requires that suicide prevention policies and training be implemented in the jail. However, not all jails seek ACA accreditation; this selection bias suggests that these data may not be nationally representative.

The update for objective 7.15 (shelter availability for battered women) comes from the same source (National Coalition Against Domestic Violence) as the baseline, but were collected differently and are not directly comparable.

### Data Availability

Data are not currently available for objectives 7.12 (emergency room protocols), 7.14 (followup on abused children), and 7.17 (comprehensive violence prevention programs). No update is available for 7.11 (inappropriate firearm storage).

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Table 7. Violent and abusive behavior objective status

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
7.1	<b>Homicide (age adjusted per 100,000)</b> . . . . .	1987	8.5	10.1	10.8	10.3	10.6	10.1	9.2	7.2
	a. Children 3 years and under (per 100,000) . . . . .	1987	3.9	4.4	4.9	4.5	4.9	---	---	3.1
	b. Spouses 15–34 years (per 100,000) . . . . .	1987	1.7	11.5	---	---	1.1	1.0	---	1.4
	c. Black males 15–34 years (per 100,000) . . . . .	1987	91.1	130.5	140.8	134.2	140.5	133.8	114.6	72.4
	d. Hispanic males 15–34 years (per 100,000) <sup>2</sup> . . . . .	1987	41.3	53.2	55.7	56.8	52.4	52.2	---	33.0
	e. Black females 15–34 years (per 100,000) . . . . .	1987	20.2	22.1	24.1	22.7	23.7	21.0	18.5	16.0
	f. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	1987	11.2	10.7	12.2	10.3	10.7	11.8	11.5	9.0
7.2*	<b>Suicide (age adjusted per 100,000)</b> . . . . .	1987	11.7	11.5	11.4	11.1	11.3	11.2	11.2	10.5
	a. Adolescents 15–19 years (per 100,000) . . . . .	1987	10.2	11.1	11.0	10.8	10.9	11.1	10.5	8.2
	b. Males 20–34 years (per 100,000) . . . . .	1987	25.2	25.1	25.1	24.5	25.5	26.5	26.3	21.4
	c. White males 65 years and over (per 100,000) . . . . .	1987	46.7	44.4	42.7	41.0	40.9	38.9	38.7	39.2
	d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	1987	20.1	21.0	19.2	17.9	18.7	23.8	20.1	17.0
7.3	<b>Firearm-related deaths (age adjusted per 100,000)</b> . . . . .	1990	14.6	...	15.2	14.9	15.6	15.1	13.9	11.6
	a. Blacks . . . . .	1990	33.4	...	35.4	34.4	37.6	35.5	30.3	30.0
7.4	<b>Child abuse and neglect (per 1,000)</b> . . . . .	1986	22.6	---	---	---	41.9	---	---	Less than 22.6
	Incidence of types of maltreatment									
	a. Physical abuse . . . . .	1986	4.9	---	---	---	<sup>3</sup> 9.1	---	---	Less than 4.9
	b. Sexual abuse . . . . .	1986	2.1	---	---	---	<sup>3</sup> 4.4	---	---	Less than 2.1
	c. Emotional abuse . . . . .	1986	3.0	---	---	---	<sup>3</sup> 7.9	---	---	Less than 3.0
	d. Neglect . . . . .	1986	14.6	---	---	---	<sup>3,4</sup> 28.6	---	---	Less than 14.6
7.5	<b>Partner abuse (per 1,000 couples)</b> . . . . .	1985	30.0	---	---	---	---	---	---	27.0
	Assaults by intimates (per 1,000 women) . . . . .	...	...	5.0	5.5	<sup>5</sup> 9.3	<sup>5</sup> 9.3	---	---	...
7.6	<b>Assault injuries (per 1,000)</b> . . . . .	1986	9.7	10.3	11.0	<sup>5</sup> 9.3	<sup>5</sup> 12.3	<sup>5</sup> 12.7	---	8.7
7.7	<b>Rape and attempted rape (per 100,000)</b>									
	Females 12 years and over . . . . .	1986	120	100	140	<sup>5</sup> 330	<sup>5</sup> 270	<sup>5</sup> 270	---	108
	a. Females 12–34 years . . . . .	1986	250	206	---	<sup>5</sup> 607	<sup>5</sup> 477	<sup>5</sup> 527	---	225
7.8*	<b>Suicide attempts among adolescents 14–17 years</b> . . . . .	1990	2.1%	...	1.7%	---	2.7%	---	2.8%	1.8%
	a. Females 14–17 years . . . . .	1991	2.5%	...	...	---	3.8%	---	3.4%	2.0%
7.9	<b>Physical fighting among adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	1991	137	...	...	---	137	---	128	110
	a. Non-Hispanic black males 14–17 years . . . . .	1991	207	...	...	---	203	---	181	160
7.10	<b>Weapon-carrying by adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	1991	107	...	...	---	92	---	81	86
	a. Non-Hispanic black adolescents 14–17 years . . . . .	1991	134	...	...	---	117	---	85	105
7.11	<b>Proportion of people with firearms in the home that are stored either loaded or unlocked</b> . . . . .	1994	<sup>6</sup> 20%	...	...	...	...	---	---	16%
7.12	<b>Emergency room protocols for victims of violence</b> . . . . .	...	---	---	---	---	---	---	---	90%
7.13	<b>Number of States with child death review systems</b> . . . . .	1991	33	...	...	32	---	40	<sup>7,8</sup> 48	45
7.14	<b>Number of States that followup abused children</b> . . . . .	...	---	---	---	---	---	---	---	30

**Table 7. Violent and abusive behavior objective status—Con.**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>7.15</b>	<b>Battered women turned away from shelters</b> . . . . .	1987	40%	---	---	---	---	---	<sup>8</sup> 66%	10%
<b>7.16</b>	<b>Conflict resolution in a required course</b>									
	Proportion of middle/junior and senior high schools . . . . .	1994	58.3%	---	---	---	---	---	---	50%
<b>7.17</b>	<b>Local comprehensive violence prevention programs</b> . . . . .	...	---	---	---	---	---	---	---	80%
<b>7.18*</b>	<b>Number of States with suicide prevention in jails</b> . . . . .	1992	<sup>a</sup> 2	...	...	...	---	<sup>9</sup> 2	<sup>6</sup> 1	50
	Proportion of jails with suicide policies . . . . .	...	---	---	---	---	79.5%	---	---	...
	Proportion of jails with ACA accreditation . . . . .	...	---	1%	1%	1%	2%	2%	2%	...
<b>7.19*</b>	<b>Number of States with firearm storage laws</b> . . . . .	1989	<sup>a</sup> 1	1	5	8	11	13	<sup>10</sup> 15	50

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1989 data.

<sup>2</sup>Excludes data from States lacking Hispanic-origin item on their death certificates or for which Hispanic-origin data were not of sufficient quality. See [appendix](#).

<sup>3</sup>Rates were computed using the Endangerment standard.

<sup>4</sup>Rate includes both physically and emotionally neglected children.

<sup>5</sup>The victimization survey was redesigned in 1992.

<sup>6</sup>37.4% reported having a firearm in or around the home and 7.2% reported having a firearm that was stored either loaded or unlocked.

<sup>7</sup>Number of State teams in 38 States and the District of Columbia plus 9 States where county/local teams serve the majority of the at-risk population.

<sup>8</sup>1996 data.

<sup>9</sup>1995 data.

<sup>10</sup>Number of States remain at 15 in 1996.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
7.1, 7.1a–f	National Vital Statistics System, CDC, NCHS.
7.2*, 7.2a–d	National Vital Statistics System, CDC, NCHS.
7.3	National Vital Statistics System, CDC, NCHS.
7.4, 7.4a–d	National Incidence of Child Abuse and Neglect Survey, Administration for Child and Families, NCCAN.
7.5	National Family Violence Survey, NIH, NIMH.
	National Crime Victimization Survey, Department of Justice, Bureau of Justice Statistics.
7.6	National Crime Victimization Survey, Department of Justice, Bureau of Justice Statistics.
7.7, 7.7a	National Crime Victimization Survey, Department of Justice, Bureau of Justice Statistics.
7.8*	1990 Baseline: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
7.8a	Youth Risk Behavior Survey, CDC, NCCDPHP.
7.9	Youth Risk Behavior Survey, CDC, NCCDPHP.
7.10	Youth Risk Behavior Survey, CDC, NCCDPHP.
7.13	Baseline: Annual 50 State Survey, National Committee for Prevention of Child Abuse. Update: National Incidence of Child Abuse and Neglect Survey, Office of Human Development, NCCAN.
7.15	Domestic Violence Statistical Survey, National Coalition Against Domestic Violence.
7.16	School Health Policies and Programs Study, CDC, NCCDPHP.

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<i>Objective number</i>	<i>Data source</i>
7.18*	Baseline and updates (States): National Study of Jails, National Center on Institutions and Alternatives, CDC, NCIPC. Baseline and update (ACA accreditation): American Correctional Association. Baseline (suicide policies): National Census of Jails, DOJ, BJS.
7.19*	Center to Prevent Handgun Violence.

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\*Duplicate objective. See full text of objective following this table.

# Violent and Abusive Behavior Objectives

**7.1:** Reduce homicides to no more than 7.2 per 100,000 people.

**7.1a:** Reduce homicides among children aged 3 and younger to no more than 3.1 per 100,000 children.

**7.1b:** Reduce homicides among spouses aged 15–34 to no more than 1.4 per 100,000.

**7.1c:** Reduce homicides among black men aged 15–34 to no more than 72.4 per 100,000.

**7.1d:** Reduce homicides among Hispanic men aged 15–34 to no more than 33.0 per 100,000.

**7.1e:** Reduce homicides among black women aged 15–34 to no more than 16.0 per 100,000.

**7.1f:** Reduce homicides among American Indians and Alaska Natives to no more than 9.0 per 100,000.

**7.2\*:** Reduce suicides to no more than 10.5 per 100,000 people.

Duplicate objective: 6.1

**7.2a\*:** Reduce suicides among youth aged 15–19 to no more than 8.2 per 100,000.

Duplicate objective: 6.1a

**7.2b\*:** Reduce suicides among men aged 20–34 to no more than 21.4 per 100,000.

Duplicate objective: 6.1b

**7.2c\*:** Reduce suicides among white men aged 65 and older to no more than 39.2 per 100,000.

Duplicate objective: 6.1c

**7.2d\*:** Reduce suicides among American Indian and Alaska Native men to no more than 17.0 per 100,000.

Duplicate objective: 6.1d

**7.3:** Reduce firearm-related deaths to no more than 11.6 per 100,000 people from major causes.

**7.3a:** Reduce firearm-related deaths among blacks to no more than 30.0 per 100,000 people from major causes.

**7.4:** Reverse to less than 22.6 per 1,000 children the rising incidence of maltreatment of children younger than age 18.

**7.4a:** Reverse to less than 4.9 per 1,000 children the rising incidence of maltreatment of children younger than age 18.

**7.4b:** Reverse to less than 2.1 per 1,000 children the rising incidence of sexual abuse of children younger than age 18.

**7.4c:** Reverse to less than 3.0 per 1,000 children the rising incidence of emotional abuse of children younger than age 18.

**7.4d:** Reverse to less than 14.6 per 1,000 children the rising incidence of neglect of children younger than age 18.

**7.5:** Reduce physical abuse directed at women by male partners to no more than 27 per 1,000 couples.

**7.6:** Reduce assault injuries among people aged 12 and older to no more than 8.7 per 1,000.

**7.7:** Reduce rape and attempted rape of women aged 12 and older to no more than 108 per 100,000 women.

**7.7a:** Reduce rape and attempted rape of women aged 12–34 to no more than 225 per 100,000.

**7.8\*:** Reduce to 1.8 percent the incidence of injurious suicide attempts among adolescents aged 14–17.

Duplicate objective: 6.2

*NOTE: Data are limited to those suicide attempts that result in hospitalization and are based on self-reports.*

**7.8a\*:** Reduce to 2.0 percent the incidence of injurious suicide attempts among female adolescents aged 14–17.

Duplicate objective: 6.2a

**7.9:** Reduce to 110 per 1,000 the incidence of physical fighting among adolescents aged 14–17.

**7.9a:** Reduce to 160 per 1,000 the incidence of physical fighting among black males aged 14–17.

**7.10:** Reduce to 86 per 1,000 the incidence of weapon-carrying by adolescents aged 14–17.

**7.10a:** Reduce to 105 per 1,000 the incidence of weapon-carrying by blacks aged 14–17.

**7.11:** Reduce by 20 percent the proportion of people who possess weapons that are inappropriately stored and therefore dangerously available.

**7.12:** Extend protocols for routinely identifying, treating, and properly referring suicide attempters, victims of sexual assault, and victims of spouse, elder, and child abuse to at least 90 percent of hospital emergency departments.

**7.13:** Extend to at least 45 States implementation of unexplained child death review systems.

**7.14:** Increase to at least 30 the number of States in which at least 50 percent of children identified as neglected or physically or sexually abused receive physical and mental evaluation with appropriate followup as a means of breaking the intergenerational cycle of abuse.

**7.15:** Reduce to less than 10 percent the proportion of battered women and their children turned away from emergency housing due to lack of space.

**7.16:** Increase to at least 50 percent the proportion of elementary and secondary schools that teach nonviolent conflict resolution skills, preferably as a part of comprehensive school health education.

**7.17:** Extend coordinated, comprehensive violence prevention programs to at least 80 percent of local jurisdictions with populations over 100,000.

**7.18\*:** Increase to 50 the number of States with officially established protocols that engage mental health, alcohol and drug, and public health authorities with corrections authorities to facilitate identification and appropriate intervention to prevent suicide by jail inmates.

Duplicate objective: 6.10

**7.19\*:** Enact in 50 States and the District of Columbia laws requiring that firearms be properly stored to minimize access and the likelihood of discharge by minors.

Duplicate objective: 9.25

*NOTE: There are some variations across States in the age which defines minors. Additionally, in some States violation of the law is a misdemeanor; in others it is a felony. Penalties for violation also vary.*

\*Duplicate objective.

# Priority Area 8 Educational and Community-Based Programs

## Background

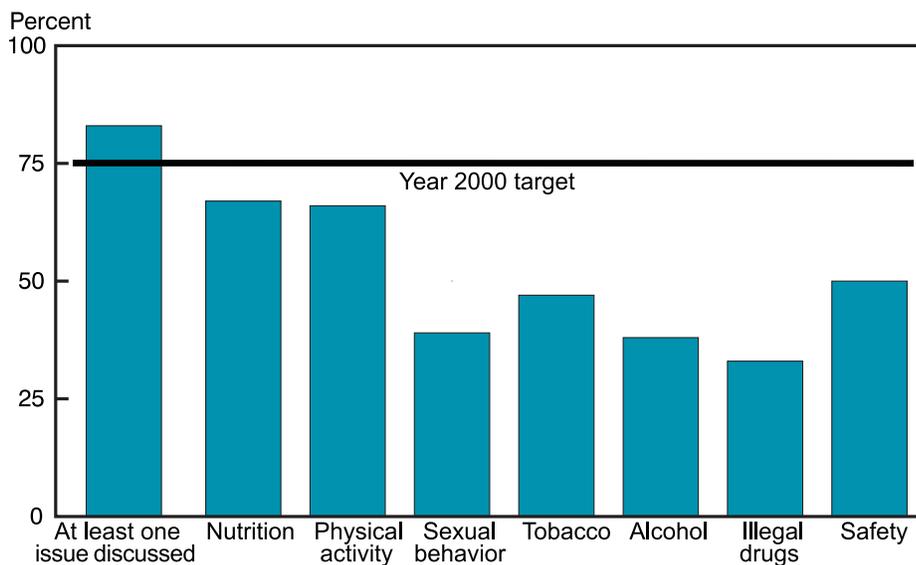
A supportive social environment may be one of the key factors in successfully influencing positive behaviors and changing negative behaviors that contribute to many of today's leading health threats. Consequently, leadership, collaboration, and initiatives at the community level are fundamental to progress. Educational and community-based interventions are designed to reach groups of people outside of traditional health care settings. Many of these intervention programs are located in specially targeted sites in the community; these programs are designed for people who come together in diverse settings, such as students within a school, employees at a worksite, or members of civic or religious groups that meet regularly. Other programs are best planned as community-wide health promotion initiatives to reach large numbers of people with highly visible and more easily implemented interventions. While some community-based programs may address a single risk factor or prominent health problem, many programs are taking a more comprehensive, holistic approach to health and healthy communities. Community-based programs are increasingly recognizing the importance of addressing the social and physical environment in which positive behaviors are reinforced.

## Data Summary

### Highlights

The average number of years of healthy life (8.1) increased in 1994 for the total population for the first time since tracking began in 1990. Years of healthy life also increased for blacks, Hispanics, and persons 65 years and over. Prior to 1994, years of healthy life had been declining since the 1990 baseline. Except for 1993 when life expectancy declined, these decreases reflected a downturn in self-reported health-related quality of life. The

**Figure 9. Proportion of people 10 years and over who discussed health issues with family members on at least one occasion during the preceding month: United States, 1994, and year 2000 target for objective 8.9**



	1994	Year 2000 target
At least one issue discussed . . . . .	83	75
Nutrition . . . . .	67	75
Physical activity . . . . .	66	75
Sexual behavior . . . . .	39	75
Tobacco . . . . .	47	75
Alcohol . . . . .	38	75
Illegal drugs . . . . .	33	75
Safety . . . . .	50	75

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

increases in 1994 were due to increases in both life expectancy and health-related quality of life (based on self-reports of health status and activity limitation).

There have been considerable improvements in opportunities offering access to preschool children (including disabled children) through organizations such as Head Start and Healthy Start (8.3), although the percent of low-income children entering kindergarten or first grade actually receiving Head Start services has declined slightly since 1992. There have also been improvements in the number of worksites offering health promotion activities (8.6) and in the proportion of hospitals offering patient education programs (8.12).

## Summary of Progress

Of the 14 Educational and Community-Based Programs objectives, 3 are progressing toward the year 2000 targets (objectives 8.6, 8.12, and 8.14), while 2 are moving away from the targets (8.1 and 8.2). Results for one objective (8.3) were mixed. Three objectives (8.4, 8.5, and 8.13) have no new data beyond the baseline. However, supplemental 1995 data for objective 8.5 on the percent of college students receiving information on health issues are now available. Proxy data are available for one objective (8.10). For three objectives (8.7, 8.9, and 8.13) the baseline data exceed the year 2000 targets. Baseline data for objective 8.8 will be available in late 1997. Baseline

data for the remaining objective (8.11) are unavailable.

## Data Issues

### Years of Healthy Life

The concept of increasing the span of healthy life is one of the three *Healthy People 2000* goals and a specific measure has been developed to track this objective in three priority areas (8.1, 17.1, and 21.1). See the [appendix](#) for a discussion of years of healthy life.

### Definitions

Objective 8.4 does not include a definition of comprehensive school health education. However, the Centers for Disease Control and Prevention uses an operational definition that includes eight elements (1). Data for the variables from the 1994 School Health Policies and Programs Study (SHPPS) used to measure these elements are shown in [table 8](#). Schools must have addressed all elements of the operational definition to meet the criteria for comprehensive school health education. In 1994, only 2.3 percent of schools included all eight elements.

Objective 8.7 asks for the proportion of hourly workers who participated regularly in employer-sponsored health promotion activities. The 1994 baseline indicates the number of people who participated in employer-sponsored health promotion programs in the past year in the following occupational categories:

- Precision production, craft, and repair occupations
- Operators, fabricators, and laborers
- Transportation and material moving occupations
- Handlers, equipment cleaners, helpers, and laborers

Family discussions of health issues (8.9) are defined as discussions in the past month among family members 10 years and over about the following topics: nutrition, exercise, safety, tobacco use, sexual behavior/sexually transmitted diseases, or illegal drugs. In 1994, 83 percent of people had discussed any of these topics with family members in the month prior to interview. This exceeds the year 2000 target of 75 percent. [Figure 9](#) displays the percent reporting discussion of

selected health issues with family members in past month.

## Data Source Descriptions

Objectives 8.2 (completion of high school) and 8.3 (preschool child development programs) and their targets are consistent with the National Education Goals for these areas. The data used to track these objectives come from the National Center for Education Statistics (NCES) (2). The data for objective 8.2 include those who received high school diplomas as well as those who received alternative credentials, such as a General Education Development (GED) certificate. Data for 1992 and 1993 are for 19–20 year olds. Beginning with data for 1994, figures for high school completion are available only for people 18–24 years of age.

### Proxy Measures and Data Availability

The trend data for objectives 8.6 (worksite health promotion activities) were from the National Survey of Worksite Health Promotion Activities, which was a telephone survey of nongovernment worksites. The data include businesses or industries that have multiple worksites. While part of the same company, the different worksites could have different sets of health promotion activities. Additionally, both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities.

Proxy data for 1992–93 from the National Association of City and County Health Officials are shown for objective 8.10. These data show the percent of the 43 reporting States in which at least 90 percent of local health departments reported providing services that addressed three or more *Healthy People 2000* priority areas. The data represent the local health departments' report of whether a program or service existed. The survey did not determine whether the program or service was a health promotion effort that involved citizen participation, included community assessment, or had measurable objectives. Information on the proportion of the State population reached by the services or programs was not available.

The Media Health Partnerships Survey was developed by CDC to measure partnerships between network

television affiliates and community health organizations (objective 8.13). The survey, conducted in September 1995–January 1996, determined that all television network affiliates in the top 20 media markets devote a substantial effort to health promotion and disease prevention through partnerships with community groups, organizations, and/or agencies. Based on these findings, objective 8.13 has been achieved and the survey will not be repeated.

Objective 8.14, which focuses on the proportion of people served by local health departments, is being monitored by the proportion of health departments carrying out the core functions of public health—assessment, assurance, and policy development.

## References

1. National Commission on the Role of the School and Community in Improving Adolescent Health. Code blue: Uniting for healthier youth. Alexandria, VA: National Association of State Boards of Education. 1990.
2. National Education Goals Panel. The national education goals report: Building a nation of learners. Washington, DC: U.S. Government Printing Office. 1996.

**Table 8. Educational and community-based programs objective status**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>8.1*</b>	<b>Years of healthy life</b>	1990	64.0	...	63.9	63.7	63.5	63.8	---	65
	a. Blacks	1990	56.0	...	56.0	55.6	55.2	55.6	---	60
	b. Hispanics <sup>1</sup>	1990	64.8	...	63.6	<sup>2</sup> 64.0	63.2	64.2	---	65
	c. People 65 years and over <sup>3</sup>	1990	11.9	...	11.8	11.9	11.9	12.1	---	14
<b>8.2</b>	<b>Completion of high school</b>									
	Ages 19–20 years	1992	87%	...	...	...	86%	---	---	90%
	Ages 18–24 years	...	---	---	---	86%	86%	86%	85%	...
	a. Hispanics									
	Ages 19–20 years	1992	65%	...	...	...	66%	---	---	90%
	Ages 18–24 years	...	---	---	---	62%	64%	62%	63%	...
	b. Blacks									
	Ages 19–20 years	1992	81%	...	...	...	80%	---	---	90%
	Ages 18–24 years	...	---	---	---	82%	82%	83%	84%	...
<b>8.3</b>	<b>Preschool child development programs</b>									
	Eligible children 4 years afforded opportunity to enroll in Head Start	1990	47%	...	55%	---	---	---	---	100%
	Low-income children receiving 1 year of Head Start services prior to entering kindergarden or first grade	...	---	---	---	58%	57%	58%	54%	100%
	Disabled children 3–5 years enrolled in preschool	...	---	---	56%	---	56%	---	63%	100%
<b>8.4</b>	<b>Schools with comprehensive school health education</b>									
	All eight criteria met	1994	2.3%	...	...	...	...	...	---	75%
	A documented, sequential program	1994	48%	...	...	...	...	...	---	...
	At least one health education course	1994	77%	...	...	...	...	...	---	...
	Instruction in six key behavioral areas	1994	47%	...	...	...	...	...	---	...
	Focus on skill development	1994	39%	...	...	...	...	...	---	...
	Health education teachers adequately trained	1994	53%	...	...	...	...	...	---	...
	Designated coordinator for health education	1994	38%	...	...	...	...	...	---	...
	Involvement of parents, health professionals, and other concerned community members	1994	31%	...	...	...	...	...	---	...
	Evaluation of health education program during the past 2 years	1994	67%	...	...	...	...	...	---	...
<b>8.5</b>	<b>Health promotion in postsecondary institutions</b>									
	Higher education institutions offering health promotion activities	1989–90	20%	...	---	---	---	---	---	50%
	College students 18–24 years of age who report receiving information from their college or university on:									
	Tobacco use prevention	...	---	---	---	---	---	---	32%	...
	Alcohol and other drug use prevention	...	---	---	---	---	---	---	60%	...
	Violence prevention	...	---	---	---	---	---	---	38%	...
	Injury prevention and safety	...	---	---	---	---	---	---	26%	...
	Suicide prevention	...	---	---	---	---	---	---	21%	...
	Pregnancy prevention	...	---	---	---	---	---	---	34%	...
	Sexually transmitted disease prevention	...	---	---	---	---	---	---	53%	...
	AIDS or HIV infection prevention	...	---	---	---	---	---	---	58%	...
	Dietary behaviors and nutrition	...	---	---	---	---	---	---	34%	...
	Physical activity and fitness	...	---	---	---	---	---	---	40%	...

**Table 8. Educational and community-based programs objective status—Con.**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>8.6</b>	<b>Worksite health promotion activities</b>									
	Worksites with 50 or more employees (using 1985 analysis) . . . . .	1985	65%	---	---	81%	---	---	---	85%
	Worksites with 50 or more employees (using 1992 analysis) . . . . .	...	...	---	---	92%	---	---	---	...
	Medium and large companies having a wellness program . . . . .	1987	63%	---	---	---	---	---	---	...
<b>8.7</b>	<b>Hourly workers in health promotion activities.</b> . . . . .	1994	21%	...	...	...	...	...	---	20%
<b>8.8</b>	<b>Health promotion programs for older adults.</b> . . . . .	...	---	---	---	---	---	---	---	90%
<b>8.9</b>	<b>Family discussion of health issues—ages 10 years and over</b> . . . . .	1994	83%	...	...	...	...	...	---	75%
	Nutrition . . . . .	...	---	---	---	---	---	67%	---	...
	Physical activity . . . . .	...	---	---	---	---	---	66%	---	...
	Sexual behavior . . . . .	...	---	---	---	---	---	39%	---	...
	Tobacco . . . . .	...	---	---	---	---	---	47%	---	...
	Alcohol . . . . .	...	---	---	---	---	---	38%	---	...
	Illegal drugs . . . . .	...	---	---	---	---	---	33%	---	...
	Safety . . . . .	...	---	---	---	---	---	50%	---	...
	Among 9th–12th grade students engaging in family discussion of HIV/AIDS . . . . .	1989	54%	53%	61%	---	66%	---	63%	...
<b>8.10</b>	<b>Number of States with community health programs addressing at least three <i>Healthy People 2000</i> objectives that reach 40% of State population</b> . . . . .	...	---	---	---	---	---	---	---	50
	Proportion of States with 90 percent of local health departments providing services that address 3 or more <i>Healthy People 2000</i> priority areas . . . . .	...	---	---	---	---	481%	---	---	...
<b>8.11</b>	<b>Counties with programs for racial/ethnic minority groups</b> . . . . .	...	---	---	---	---	---	---	---	50%
<b>8.12</b>	<b>Hospital-based patient education and community health promotion</b>									
	Patient education programs									
	Registered hospitals . . . . .	1987	68%	86%	---	---	---	---	---	90%
	Health maintenance organizations . . . . .	...	---	---	---	---	---	---	---	90%
	Health education classes . . . . .	...	---	575%	---	84%	---	---	---	...
	Nutrition counseling . . . . .	...	---	585%	---	87%	---	---	---	...
	Smoking cessation classes . . . . .	...	---	---	---	67%	---	---	---	...
	Community health promotion programs									
	Community hospitals . . . . .	1987	60%	77%	---	---	---	---	---	90%
<b>8.13</b>	<b>Television partnerships with community organizations for health promotion</b> . . . . .	1995–96	100%	...	...	...	...	...	...	75%
<b>8.14</b>	<b>Effective public health systems</b>									
	Local health departments reporting:									
	Health assessment									
	Behavioral risk assessment . . . . .	1990	33%	...	---	---	6_	---	---	90%
	Morbidity data . . . . .	1990	49%	...	---	---	6_	---	---	90%
	Reportable disease . . . . .	1990	87%	...	---	---	6_	---	---	90%
	Vital records and statistics . . . . .	1990	64%	...	---	---	6_	---	---	90%
	Surveillance chronic disease . . . . .	1990	55%	...	---	---	6_	---	---	90%
	Surveillance communicable disease . . . . .	1990	92%	...	---	---	6_	---	---	90%
	Policy development functions and services									
	Health code development and enforcement . . . . .	1990	59%	...	---	---	6_	---	---	90%

**Table 8. Educational and community-based programs objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Health planning . . . . .	1990	57%	...	---	---	<sup>6</sup> ---	---	---	90%
Health assurance									
Health education . . . . .	1990	74%	...	---	---	84%	---	---	90%
Child health . . . . .	1990	84%	...	---	---	<sup>6</sup> ---	---	---	90%
Immunizations . . . . .	1990	92%	...	---	---	96%	---	---	90%
Prenatal care . . . . .	1990	59%	...	---	---	64%	---	---	90%
Primary care . . . . .	1990	22%	...	---	---	30%	---	---	90%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Estimate based on preliminary data. Excludes mortality data from States lacking a Hispanic-origin item on their death certificate or for which Hispanic-origin data were not of sufficient quality. See [appendix](#).

<sup>2</sup>Estimate derived from 1991–93 health status data and 1992 mortality data.

<sup>3</sup>Years of healthy life remaining at age 65.

<sup>4</sup>1992–93 data. Data are from 43 States and represent local health department's report of whether a program or service existed.

<sup>5</sup>1988 data.

<sup>6</sup>A number of items are unavailable because of substantial differences in wording of questions between the 1990 and 1992–93 surveys.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
8.1*, 8.1a–c	National Health Interview Survey, CDC, NCHS; National Vital Statistics System, CDC, NCHS.
8.2, 8.2a–b	National Center for Education Statistics, National Education Goals Panel.
8.3	Head Start data: Head Start Bureau: Administration on Children, Youth, and Families; data on disabled children: National Center for Education Statistics, National Education Goals Panel.
8.4	School Health Policies and Programs Study, CDC, NCCDPHP.
8.5	Baseline: Health Promotion on Campus Survey and Directory, American College Health Association. Updates for college students: National College Health Risk Behavior Survey, CDC, NCCDPHP.
8.6	Baseline and updates for worksites with 50 or more employees: National Survey of Worksite Health Promotion Activities, OASH, ODPHP. Baseline for medium and large companies: Health Research Institute Biennial Survey, Health Research Institute.
8.7	National Health Interview Survey, CDC, NCHS.
8.9	1989 Baseline: Secondary School Student Health Risk Survey, CDC, NCCDPHP. 1990 Update: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991 and 1993 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP. 1994 Baseline: National Health Interview Survey, CDC, NCHS.
8.10	National Profile of Local Health Departments, National Association of City and County Health Officials.
8.12	Annual Survey of Hospitals, American Hospital Association. HMO Industry Profile, Group Health Association of America, Inc.
8.13	Media Health Partnerships Survey, CDC, NCCDPHP.
8.14	National Profile of Local Health Departments, National Association of City and County Health Officials.

\*Duplicate objective. See full text of objective following this table.

# Educational and Community-Based Programs Objectives

**8.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 17.1 and 21.1

**8.1a\*:** Increase years of healthy life among black persons to at least 60 years.

Duplicate objectives: 17.1a and 21.1a

**8.1b\*:** Increase years of healthy life among Hispanics to at least 65 years.

Duplicate objectives: 17.1b and 21.1b

**8.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 years remaining at age 65.

Duplicate objectives: 17.1c and 21.1c

**8.2:** Increase the high school graduation rate to at least 90 percent, thereby reducing risks for multiple problem behaviors and poor mental and physical health.

*NOTE: This objective and its target are consistent with the National Education Goal to increase high school graduation rates.*

**8.2a:** Increase the high school graduation rate among Hispanics to at least 90 percent, thereby reducing risks for multiple problem behaviors and poor mental and physical health.

**8.2b:** Increase the high school graduation rate among blacks to at least 90 percent, thereby reducing risks for multiple problem behaviors and poor mental and physical health.

**8.3:** Achieve for all disadvantaged children and children with disabilities access to high quality and developmentally appropriate preschool

programs that help prepare children for school, thereby improving their prospects with regard to school performance, problem behaviors, and mental and physical health.

*NOTE: This objective and its target are consistent with the National Education Goal to increase school readiness and its objective to increase access to preschool programs for disadvantaged and disabled children.*

**8.4:** Increase to at least 75 percent the proportion of the Nation's elementary and secondary schools that provide planned and sequential kindergarten–12th grade comprehensive school health education.

**8.5:** Increase to at least 50 percent the proportion of postsecondary institutions with institution-wide health promotion programs for students, faculty, and staff.

**8.6:** Increase to at least 85 percent the proportion of workplaces with 50 or more employees that offer health promotion activities for their employees, preferably as part of a comprehensive employee health promotion program.

**8.7:** Increase to at least 20 percent the proportion of hourly workers who participate regularly in employer-sponsored health promotion activities.

**8.8:** Increase to at least 90 percent the proportion of people aged 65 and older who had the opportunity to participate during the preceding year in at least one organized health promotion program through a senior center, lifecare facility, or other community-based setting that serves older adults.

**8.9:** Increase to at least 75 percent the proportion of people aged 10 and older who have discussed issues related to nutrition, physical activity, sexual behavior, tobacco, alcohol, other drugs, or safety with family members on at least one occasion during the preceding month.

**8.10:** Establish community health promotion programs that separately or together address at least three of the Healthy People 2000 priorities and reach at least 40 percent of each State's population.

**8.11:** Increase to at least 50 percent the proportion of counties that have established culturally and linguistically appropriate community health promotion

programs for racial and ethnic minority populations.

**8.12:** Increase to at least 90 percent the proportion of hospitals, health maintenance organizations, and large group practices that provide patient education programs, and to at least 90 percent the proportion of community hospitals that offer community health promotion programs addressing the priority health needs of their communities.

**8.13:** Increase to at least 75 percent the proportion of local television network affiliates in the top 20 television markets that have become partners with one or more community organizations around one of the health problems addressed by the Healthy People 2000 objectives.

**8.14:** Increase to at least 90 percent the proportion of people who are served by a local health department that is effectively carrying out the core functions of public health.

*NOTE: The core functions of public health have been defined as assessment, policy development, and assurance. Local health department refers to any local component of the public health system, defined as an administrative and service unit of local or State government concerned with health and carrying some responsibility for the health of a jurisdiction smaller than a State.*

\*Duplicate objective.

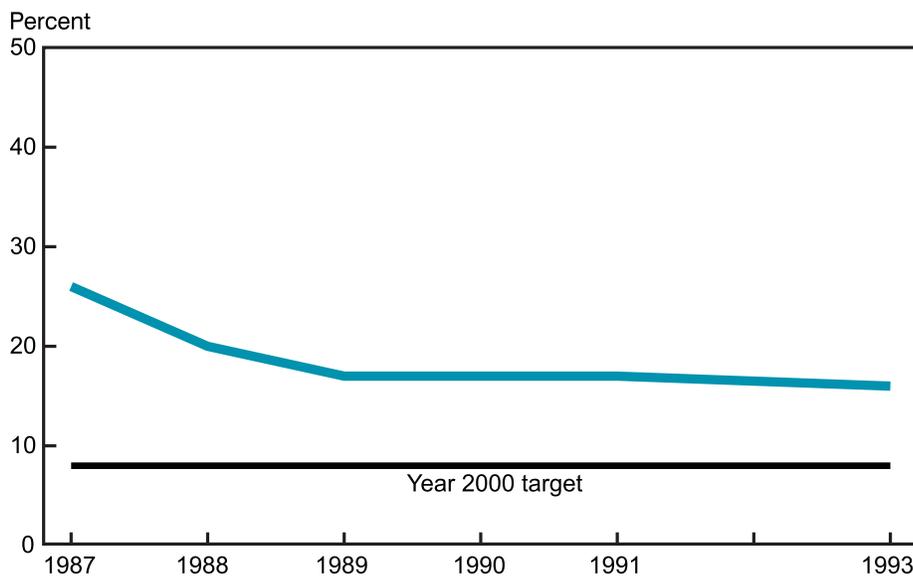
# Priority Area 9 Unintentional Injuries

## Background

Unintentional injuries are the fifth leading cause of death in the United States, accounting for nearly 90,000 deaths in 1995 (1). They are a major cause of disabilities and hospitalization and have significant impact on health care costs; in 1994 alone, medical expenses attributable to unintentional injuries were estimated at nearly \$80 billion (2). Motor vehicle injuries remain the most costly and fatal of unintentional injuries. The National Safety Council estimated that 1994 motor vehicle crashes cost the United States \$169 billion in lost wages, medical expenses, and administrative costs (2). However, efforts to reduce motor vehicle-related injuries show promise. Among passenger vehicle occupants over 4 years old, safety belt laws saved an estimated 9,797 lives in 1995 (3). Child safety seats saved the lives of 2,934 infants and toddlers between 1982 and 1995 (3) and motorcycle helmets saved 5,000 lives between 1984 and 1990 (4). Motorcycle helmet use is also associated with less severe injuries and lower health care costs (5). In 1995 alone, 791 lives would have been saved if all motorcyclists wore helmets (3). An additional 1,100 lives have been saved annually since the passage and enforcement of laws limiting drinking to age 21 and over (6).

While motor vehicle accidents remain the most costly and fatal of unintentional injuries, fires and fire-related injuries are also costly in terms of lives, property, and health care. Fires accounted for an annual average of 3,632 deaths between 1986 and 1995 (about 4 percent of all unintentional injury deaths). In 1995, there were an estimated 414,000 residential fires in the United States that claimed the lives of 3,640 individuals and injured an additional 18,650 people (7). Direct property damage caused by these fires was in excess of \$4.2 billion (7). In 1994, the estimated cost of all fire deaths totaled \$14.8 billion (8). More than one-quarter of the fire deaths are attributable to either arson or children

**Figure 10. Proportion of residential fires caused by smoking: United States, 1987–91, 1993, and year 2000 target for objective 9.6e**



	1987	1988	1989	1990	1991	1992	1993	Year 2000 target
Residential fire deaths caused by smoking . . .	26	20	17	17	17	---	16	8

--- Data not available.

SOURCE: Federal Emergency Management Administration, U.S. Fire Administration, National Fire Incident Reporting System.

playing with fires; these two categories of fires also accounted for nearly 80,000 injuries and almost \$30 billion in property damage between 1980 and 1993. Three-quarters of the fires started by children were attributed to children aged 5 and under playing with matches or lighters; nearly one-half of arsons are attributed to youth 18 years of age and under (9,10). Residential fires caused by smoking (objective 9.6e and figure 10) have declined from the baseline level, but remain an important problem related to fire safety. These data strongly emphasize the need to target fire prevention efforts toward youth.

Although less visible, fall-related injuries and deaths among older Americans are increasing; this is in part attributable to the aging of the population. The costs associated with fall-related injuries are extensive, but many of these injuries are preventable through exercise, diet, building redesign, and other interventions (11). In 1994, direct costs for fall injuries was an

estimated \$20.2 billion for persons age 65 and over (12).

## Data Summary

### Highlights

Motor vehicle crash deaths (9.3) increased between 1994 and 1995, but remain below baseline level. Forty-nine States have enacted laws requiring seat belt use (9.14) and reported usage (9.12) also increased slightly to 68 percent. The number of States with laws related to safe firearm storage (9.25) increased from 1 in 1989 to 14 in 1995.

### Summary of Progress

Seventeen objectives (9.1–9.6, 9.8–9.10, 9.12–9.14, 9.16, 9.18, and 9.23–9.25) showed progress toward the year 2000 targets. Targets were achieved for objectives 9.2, 9.6, 9.8, 9.10, and 9.18. However, part of the progress for

objective 9.8 (nonfatal poisoning) may be an artifact of changes in the methodology (see [Data Issues](#)). Two objectives (9.7 and 9.17) show movement away from the target. However, objective 9.17 (smoke detectors) does show progress in the proportion of people with at least one detector in place in their residence (a 35-percent increase from 1985) and in the proportion of people with a detector on each floor of their residence (a 32-percent increase from 1993). The updates for 9.15 (handgun design) show no change in the objective's status.

No updates were available for four objectives (9.19, 9.21, 9.22, and 9.26). Baselines are not available for objectives 9.11 and 9.20.

## Data Issues

### Data Definitions

Objective 9.2 (nonfatal unintentional injuries) is tracked with data from the National Hospital Discharge Survey (NHDS) maintained by the National Center for Health Statistics (NCHS). The ICD-9 codes designated for this objective include both unintentional and intentional injuries. The two types of injuries cannot be distinguished at the national level because, currently, only 15 States mandate the use of E-codes (external causes) on hospital discharge forms. NCHS is working with States to increase the use of E-codes.

The 1990 baseline data for fire-related deaths for Puerto Ricans (9.6g) have been revised. The original baseline published in the *Midcourse Review and 1995 Revisions* (4) included data for 45 States and the District of Columbia. It did not include data for New York where about 40 percent of the U.S. Puerto Rican population resides. The revised baseline, which includes data for 47 States and the District of Columbia (including New York), is considerably lower than originally published and, in fact, is below the year 2000 target for this subobjective. The number of States reporting Hispanic origin data on their birth and death certificates has varied from year to year; see [appendix](#) for more information.

Objective 9.7 (hip fractures among older adults) is also monitored with data from the NHDS. These rates are based on extremely small numbers and must be interpreted cautiously. Data on race

are missing in approximately 17 percent of the cases; this tends to underestimate rates for the special population objective (9.7a for white women over 85).

Objectives 9.14 (safety belt and motorcycle helmet laws), 9.15 (handgun design laws), 9.22 (trauma linking systems), 9.24 (bicycle helmet laws), 9.25 (handgun storage laws), and 9.26 (graduated driver licensing) all relate to State laws or programs that vary across States in populations targeted, penalties, and liability.

The baseline and target for objective 9.17 (smoke detectors) are based on estimates of the proportion of homes with smoke detectors; this is somewhat different than the intent of the objective, which focuses on smoke detectors on each habitable floor. Updates on the proportion of homes with smoke detectors are from the National Health Interview Survey (NHIS), a source different than that used for the baseline. However, data from the 1993 NHIS were analyzed to obtain an estimate of the proportion of people living in apartments or condominiums who report having one or more smoke detectors and the proportion of people living in townhouses or single family homes who report having two or more smoke detectors; this value was 66 percent. Findings from a survey conducted by the Consumer Product Safety Commission indicated that 52 percent of households had at least one functional smoke detector on each floor (13). The 1994 updates are from the NHIS. The estimate for smoke detectors on each floor was calculated using a question with slightly different wording than the question on the 1993 NHIS. However, the increase in the proportion of people with smoke detectors on each floor is consistent with the increase in the proportion of homes with smoke detectors. Updates from the NHIS will be used to monitor this objective throughout the decade.

### Data Source Description

Data for objective 9.3 (motor vehicle crash deaths) and the subobjectives (except d and g) are crude rates from the Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System) (FARS). See the [appendix](#) for a discussion of crude and age-adjusted rates and the chapter on Priority Area 4 for a description of FARS. The rates for 9.3d (American Indian and Alaska Natives)

and 9.3g (Mexican-Americans) are age-adjusted data from the National Vital Statistics System.

Data for objective 9.21 (injury prevention counseling) are from the Primary Care Provider Surveys (PCPS). The sample for the survey was drawn from the membership rolls of professional associations of internists, family physicians, nurse practitioners, pediatricians, and obstetricians/gynecologists. Response rates from these groups varied from 50–80 percent. The data on inquiry about seat belt use and falls in the home represent the proportion of practitioners who routinely queried 81–100 percent of their patients about these risks. The data on counseling about these issues represents the proportion of providers who routinely provided these services to their patients who needed the services. The basis for counseling may be independent of the inquiry made by the clinicians.

### Data Comparability

Data for 9.8 (nonfatal poisonings) are from the National Electronic Injury Surveillance System (NEISS), which is maintained by the Consumer Product Safety Commission (CPSC). This system does not utilize ICD-9 or other conventional injury coding mechanisms. Injuries reported in the system are limited to those related to products regulated by CPSC in a given year. Therefore, variation in the numbers and types of products affect the number of injuries reported in the system.

In 1991, data collection for objectives 9.12 (motor vehicle occupant protection systems) and 9.13 (helmet use by motorcyclists and bicyclists) was expanded from 19 metropolitan areas to all 50 States. The data collection methods (direct observation) are unchanged; however, data on child use of occupant restraints are no longer being reported.

### Proxy Measures

Tracking data for 9.16 (fire suppression systems) are from the National Fire Incident Reporting System (NFIRS) and indicate the proportion of fires in residential properties that have automatic suppression systems. Data on localities for this objective are not available.

The additional data for objective 9.19 (protective sports equipment) are from the NHIS and represent the

proportions of children playing baseball, softball, football, or soccer who use headgear or mouthguards; there will be additional data from the NHIS to track this objective later in the decade.

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**Table 9. Unintentional injuries objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>9.1</b>	<b>Unintentional injury deaths (age adjusted per 100,000)</b> . . . . .	1987	34.7	32.5	31.0	29.4	30.3	30.3	30.5	29.3
	a. American Indians/Alaska Natives . . . . .	1987	66.0	59.0	58.3	57.3	58.1	58.3	56.7	53.0
	b. Black males . . . . .	1987	<sup>a</sup> 68.0	62.4	61.0	56.7	59.8	58.5	57.6	51.9
	c. White males . . . . .	1987	<sup>a</sup> 49.8	46.4	43.9	41.9	42.7	42.7	43.0	42.9
	d. Mexican-American males <sup>1</sup> . . . . .	1990	<sup>a</sup> 53.1	...	47.2	46.5	48.6	46.1	44.6	43.0
<b>9.2</b>	<b>Unintentional injury hospitalizations (per 100,000)<sup>2</sup></b> . . . . .	1988	<sup>a</sup> 832	780	764	714	699	654	635	754
	a. Black males <sup>2</sup> . . . . .	1991	1,007	...	...	969	893	847	911	856
<b>9.3</b>	<b>Motor vehicle crash deaths</b>									
	Per 100 million vehicle miles traveled (VMT) . . . . .	1987	2.4	2.1	1.9	1.8	1.7	1.7	1.7	1.5
	Per 100,000 population . . . . .	1987	19.2	17.9	16.4	15.4	15.6	15.6	15.9	14.2
	a. Children 14 years and under (per 100,000) . . . . .	1987	6.2	5.3	5.0	4.8	4.8	5.0	4.8	4.4
	b. People 15–24 years (per 100,000) . . . . .	1987	36.9	33.3	31.4	28.0	28.6	29.1	29.6	26.8
	c. People 70 years and over (per 100,000) . . . . .	1987	22.6	23.9	22.3	21.9	22.9	23.3	23.3	20.0
	d. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	1987	37.7	33.2	33.4	32.0	32.3	31.4	33.1	32.0
	e. Motorcyclist (per 100 million VMT) . . . . .	1987	40.9	33.8	30.6	25.1	24.8	22.8	---	25.6
	(per 100,000) . . . . .	1987	1.7	1.3	1.1	0.9	0.9	0.9	0.9	0.9
	f. Pedestrians (per 100,000) . . . . .	1987	2.8	2.6	2.3	2.2	2.2	2.1	2.1	2.0
	g. Mexican-Americans (age adjusted per 100,000) <sup>1</sup> . . . . .	1990	20.9	...	18.9	17.5	18.1	18.7	17.7	18.0
<b>9.4</b>	<b>Fall-related deaths (age adjusted per 100,000)</b> . . . . .	1987	2.7	2.7	2.6	2.5	2.5	2.5	2.6	2.3
	a. People 65–84 years (per 100,000) . . . . .	1987	18.1	17.8	18.0	17.6	17.8	18.3	18.5	14.4
	b. People 85 years and over (per 100,000) . . . . .	1987	133.0	143.1	147.5	147.3	149.5	147.0	152.0	105.0
	c. Black males 30–69 years (per 100,000) . . . . .	1987	8.1	6.8	6.2	5.3	5.5	---	---	5.6
	d. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	1990	3.2	...	3.1	3.1	4.3	3.2	3.8	2.8
<b>9.5</b>	<b>Drowning deaths (age adjusted per 100,000)</b> . . . . .	1987	2.1	1.9	1.9	1.6	1.7	1.5	1.7	1.3
	a. Children aged 4 and under (per 100,000) . . . . .	1987	<sup>a</sup> 4.3	3.4	3.6	3.2	3.2	2.8	3.7	2.3
	b. Males 15–34 years (per 100,000) . . . . .	1987	4.5	4.0	4.1	3.4	3.6	3.1	4.6	2.5
	c. Black males (age adjusted per 100,000) . . . . .	1987	6.6	5.0	5.8	4.1	4.3	4.0	4.1	3.6
	d. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	1990	4.3	...	---	4.0	4.3	4.3	3.5	2.0
<b>9.6</b>	<b>Residential fire deaths (age adjusted per 100,000)</b> . . . . .	1987	<sup>a</sup> 1.7	1.5	1.5	1.4	1.3	1.4	1.2	1.2
	a. Children 4 years and under (per 100,000) . . . . .	1987	<sup>a</sup> 4.5	3.5	3.8	3.4	3.6	3.5	2.6	3.3
	b. People 65 years and over (per 100,000) . . . . .	1987	<sup>a</sup> 4.9	4.1	3.9	3.7	3.7	3.5	3.6	3.3
	c. Black males (age adjusted per 100,000) . . . . .	1987	<sup>a</sup> 6.4	5.2	5.1	4.9	4.6	4.5	4.2	4.3
	d. Black females (age adjusted per 100,000) . . . . .	1987	<sup>a</sup> 3.3	2.7	2.6	2.3	2.6	2.4	2.4	2.6
	e. Residential fire deaths caused by smoking . . . . .	1987	26%	17%	17%	---	16%	---	---	8%
	f. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	1990	2.1	...	2.3	2.5	2.5	3.1	3.1	1.4
	g. Puerto Ricans (age adjusted per 100,000) <sup>1</sup> . . . . .	1990	<sup>a</sup> 1.8	...	1.4	1.4	1.0	1.1	1.3	2.0
<b>9.7</b>	<b>Hip fractures among adults 65 years old and over (per 100,000)</b> . . . . .	1988	714	776	814	757	841	815	818	607
	a. White females 85 years and over . . . . .	1988	2,721	3,075	3,091	2,368	3,035	2,815	2,604	2,177
<b>9.8</b>	<b>Nonfatal poisoning (per 100,000)</b> . . . . .	1986	<sup>a</sup> 120	69	63	65	61	49	---	88
	a. Among children 4 years and under . . . . .	1986	<sup>a</sup> 762	730	702	635	591	518	---	520
<b>9.9</b>	<b>Nonfatal head injuries (per 100,000)</b> . . . . .	1988	118	110	104	92	90	84	87	106
<b>9.10</b>	<b>Nonfatal spinal cord injuries (per 100,000)</b> . . . . .	1988	5.3	4.4	6.4	3.6	4.7	3.9	4.6	5.0
	a. Males . . . . .	1988	9.6	6.9	9.8	4.8	6.7	7.1	6.9	7.1

**Table 9. Unintentional injuries objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>9.11</b>	<b>Incidence of secondary conditions associated with traumatic spinal cord injuries</b>	...	---	---	---	---	---	---	---	20% reduction
<b>9.12</b>	<b>Motor vehicle occupant protection systems</b>	1988	42%	49%	59%	62%	66%	67%	68%	85%
	a. Children 4 years and under	1988	48%	50%	55%	---	60%	60%	---	70%
<b>9.13</b>	<b>Helmet use by motorcyclists and bicyclists</b>									
	Motorcyclists	1988	60%	60%	62%	---	---	---	---	80%
	Bicyclists	1988	8%	---	17.6%	---	---	---	---	50%
<b>9.14</b>	<b>Safety belt and helmet use laws</b>									
	Number of States with safety belt laws <sup>3</sup>	1989	33	36	41	44	45	48	49	50
	Number of States with motorcycle helmet use laws <sup>4</sup>	1989	22	23	24	24	25	25	---	50
<b>9.15</b>	<b>Number of States with handgun design to protect children</b>	1989	0	0	---	---	---	---	---	50
<b>9.16</b>	<b>Fire suppression sprinkler installation codes (number of localities)</b>	1989	700	---	---	---	---	---	---	2,000
	Proportion of residential fires with suppression equipment	...	---	52.4	2.5	2.7	2.6	---	---	...
<b>9.17</b>	<b>Smoke detectors</b>									
	In inhabited residential dwellings	1989	81%	82%	---	---	80%	---	---	100%
	At least one on each habitable floor	...	---	---	---	---	52%	---	---	100%
	Proportion of people with at least one detector	...	---	68.5%	---	---	87.6%	92.7%	---	100%
	At least one on each floor	...	---	---	---	---	66%	86.8%	---	100%
<b>9.18</b>	<b>Injury prevention instruction in required course</b>									
	Proportion of middle/junior and senior high schools	1994	66.2%	---	---	---	---	---	---	50%
<b>9.19*</b>	<b>Protective equipment in sporting and recreation events</b>	...	---	---	---	---	---	---	---	100%
	National Collegiate Athletic Association									
	Football	1988	Required	---	---	---	---	---	---	...
	Hockey	1988	Required	---	---	---	---	---	---	...
	Lacrosse	1988	Required	---	---	---	---	---	---	...
	High school football	1988	Required	---	---	---	---	---	---	...
	Amateur boxing	1988	Required	---	---	---	---	---	---	...
	Amateur ice hockey	1988	Required	---	---	---	---	---	---	...
	Use of protective headgear and mouth guards among children who play sports									
	Baseball/softball									
	Headgear	...	---	---	35%	---	---	---	---	...
	Mouth guard	...	---	---	7%	---	---	---	---	...
	Football									
	Headgear	...	---	---	72%	---	---	---	---	...
	Mouth guard	...	---	---	72%	---	---	---	---	...
	Soccer									
	Headgear	...	---	---	4%	---	---	---	---	...
	Mouth guard	...	---	---	7%	---	---	---	---	...
<b>9.20</b>	<b>Number of States with design standards for roadway safety</b>	...	---	---	---	---	---	---	---	50
<b>9.21</b>	<b>Injury prevention counseling by primary care providers</b>	...	---	---	---	---	---	---	---	50%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Inquiry about seat belt/child seat use									

**Table 9. Unintentional injuries objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Pediatricians . . . . .	1992	45%	...	...	...	---	---	---	50%
Nurse practitioners . . . . .	1992	29%	...	...	...	---	---	---	50%
Obstetricians/gynecologists . . . . .	1992	6%	...	...	...	---	---	---	50%
Internists . . . . .	1992	11%	...	...	...	---	---	---	50%
Family physicians . . . . .	1992	16%	...	...	...	---	---	---	50%
Inquiry about hazards for falls in the home (65 years and over)									
Nurse practitioners . . . . .	1992	15%	...	...	...	---	---	---	50%
Internists . . . . .	1992	10%	...	...	...	---	---	---	50%
Family physicians . . . . .	1992	7%	...	...	...	---	---	---	50%
Advice about seat belt/child seat use									
Pediatricians . . . . .	1992	58%	...	...	...	---	---	---	50%
Nurse practitioners . . . . .	1992	32%	...	...	...	---	---	---	50%
Obstetricians/gynecologists . . . . .	1992	18%	...	...	...	---	---	---	50%
Internists . . . . .	1992	15%	...	...	...	---	---	---	50%
Family physicians . . . . .	1992	29%	...	...	...	---	---	---	50%
Advice about prevention of falls in the home (65 years and over)									
Nurse practitioners . . . . .	1992	17%	...	...	...	---	---	---	50%
Internists . . . . .	1992	17%	...	...	...	---	---	---	50%
Family physicians . . . . .	1992	15%	...	...	...	---	---	---	50%
<b>9.22 Number of States with linked emergency medical services and trauma systems . . . . .</b>	1993	7	...	...	...	...	---	---	20
<b>9.23* Alcohol-related motor vehicle deaths (per 100,000) . . . . .</b>	1987	9.8	8.9	7.9	6.9	6.8	6.4	6.5	5.5
a. American Indian/Alaska Native men . . . . .	1987	40.4	<sup>7</sup> 35.6	<sup>5</sup> 32.9	---	---	---	---	44.8
b. People aged 15–24 . . . . .	1987	21.5	18.5	17.2	14.1	13.8	13.1	12.9	18
<b>9.24 Number of States with bicycle helmet laws . . . . .</b>	1994	9	...	...	...	...	...	13	50
<b>9.25* Number of States with firearm storage laws . . . . .</b>	1989	<sup>a</sup> 1	1	5	8	11	13	<sup>8</sup> 15	50
<b>9.26 Number of States with graduated licensing systems . . . . .</b>	1993	16	...	...	...	...	---	---	35

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Excludes data from States lacking Hispanic-origin item on their death certificates or for which Hispanic-origin data were not of sufficient quality. See [appendix](#).

<sup>2</sup>Data include intentional and unintentional injuries and injuries where the intent was not known.

<sup>3</sup>The District of Columbia, Puerto Rico, and other U.S. possessions also have a safety belt law.

<sup>4</sup>The District of Columbia and Puerto Rico also have a motorcycle helmet law.

<sup>5</sup>1989 data.

<sup>6</sup>1985 data.

<sup>7</sup>1988 data.

<sup>8</sup>The number of States remains at 15 in 1996.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data Sources</i>
9.1, 9.1a–d	National Vital Statistics System, CDC, NCHS.
9.2	National Hospital Discharge Survey, CDC, NCHS.
9.3, 9.3a–c,e,f	Fatality and Analysis Reporting System, DOT, NHTSA.
9.3d,g	National Vital Statistics System, CDC, NCHS.
9.4, 9.4a–d	National Vital Statistics System, CDC, NCHS.
9.5, 9.5a–d	National Vital Statistics System, CDC, NCHS.
9.6, 9.6a–d, f, g	National Vital Statistics System, CDC, NCHS.
9.6e	National Fire Incident Reporting System, FEMA, U.S. Fire Administration.
9.7, 9.7a	National Hospital Discharge Survey, CDC, NCHS.
9.8, 9.8a	National Electronic Injury Surveillance System, Consumer Product Safety Commission, Directorate for Epidemiology.
9.9	National Hospital Discharge Survey, CDC, NCHS.
9.10, 9.10a	National Hospital Discharge Survey, CDC, NCHS.
9.12, 9.12a	Baseline: 19 Cities Survey, U.S. DOT, NHTSA. Updates: Population weighted State surveys, U.S. DOT, NHTSA.
9.13	Baseline: 19 Cities Survey, U.S. DOT, NHTSA. Updates: Population weighted State surveys, U.S. DOT, NHTSA.
9.14	U.S. DOT, NHTSA.
9.15	Telephone Survey on Handgun Laws, CDC, NCIPC.
9.16	Baseline (localities): Fire Suppression Sprinkler Codes, FEMA, U.S. Fire Administration. Updates: National Fire Incident Reporting System, FEMA, U.S. Fire Administration.
9.17	Residences with smoke detectors: 1985 and 1990 data: Prevention Index, Rodale Press. 1993 data: Smoke Detector Operability Survey, Consumer Product Safety Commission. Proportion of people with smoke detectors: National Health Interview Survey, CDC, NCHS.
9.18	School Health Policies and Programs Study, CDC, NCCDPHP.
9.19*	CDC, NCPS. NIH, NIDR. 1991 data: National Health Interview Survey, CDC, NCHS.
9.21	Primary Care Providers Surveys, OASH, ODPHP.
9.22	CDC, NCIPC.
9.23*, 9.23 a–b	Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System), U.S. DOT, NHTSA.
9.24	National SAFEKIDS Campaign.
9.25*	Center to Prevent Handgun Violence.
9.26	DOT, NHTSA.

\*Duplicate objective. See full text of objective following this table.

# Unintentional Injuries Objectives

**9.1:** Reduce deaths caused by unintentional injuries to no more than 29.3 per 100,000 people.

**9.1a:** Reduce deaths among American Indians and Alaska Natives caused by unintentional injuries to no more than 53.0 per 100,000 people.

**9.1b:** Reduce deaths among black males caused by unintentional injuries to no more than 51.9 per 100,000 people.

**9.1c:** Reduce deaths among white males caused by unintentional injuries to no more than 42.9 per 100,000.

**9.1d:** Reduce deaths among Mexican–American males caused by unintentional injuries to no more than 43.0 per 100,000.

**9.2:** Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 754 per 100,000 people.

**9.2a:** Reduce nonfatal unintentional injuries among black males so that hospitalizations for this condition are no more than 856 per 100,000 people.

**9.3:** Reduce deaths caused by motor vehicle crashes to no more than 1.5 per 100 million vehicle miles traveled and 14.2 per 100,000 people.

**9.3a:** Reduce deaths among children aged 14 and younger caused by motor vehicle crashes to no more than 4.4 per 100,000.

**9.3b:** Reduce deaths among youth aged 15–24 caused by motor vehicle crashes to no more than 26.8 per 100,000.

**9.3c:** Reduce deaths among people aged 70 and older caused by motor vehicle crashes to no more than 20 per 100,000.

**9.3d:** Reduce deaths among American Indians and Alaska Natives caused by motor vehicle crashes to no more than 32 per 100,000.

**9.3e:** Reduce deaths among motorcyclists caused by motor vehicle crashes to no more than 25.6 per 100 million vehicle miles traveled and 0.9 per 100,000.

**9.3f:** Reduce deaths among pedestrians caused by motor vehicle crashes to no more than 2.0 per 100,000.

**9.3g:** Reduce deaths among Mexican-Americans caused by motor vehicle crashes to no more than 18 per 100,000.

**9.4:** Reduce deaths from falls and fall-related injuries to no more than 2.3 per 100,000 people.

**9.4a:** Reduce deaths among people aged 65–84 from falls and fall-related injuries to no more than 14.4 per 100,000.

**9.4b:** Reduce deaths among people aged 85 and older from falls and fall-related injuries to no more than 105 per 100,000.

**9.4c:** Reduce deaths among black men aged 30–69 from falls and fall-related injuries to no more than 5.6 per 100,000.

**9.4d:** Reduce deaths among American Indians and Alaska Natives from falls and fall-related injuries to no more than 2.8 per 100,000.

**9.5:** Reduce drowning deaths to no more than 1.3 per 100,000 people.

**9.5a:** Reduce drowning deaths among children aged 4 and younger to no more than 2.3 per 100,000.

**9.5b:** Reduce drowning deaths among men aged 15–34 to no more than 2.5 per 100,000.

**9.5c:** Reduce drowning deaths among black males to no more than 3.6 per 100,000.

**9.5d:** Reduce drowning deaths among American Indians and Alaska Natives to no more than 2.0 per 100,000.

**9.6:** Reduce residential fire deaths to no more than 1.2 per 100,000 people.

**9.6a:** Reduce residential fire deaths among children aged 4 and younger to no more than 3.3 per 100,000.

**9.6b:** Reduce residential fire deaths among people aged 65 and older to

no more than 3.3 per 100,000.

**9.6c:** Reduce residential fire deaths among black males to no more than 4.3 per 100,000.

**9.6d:** Reduce residential fire deaths among black females to no more than 2.6 per 100,000.

**9.6e:** Reduce residential fire deaths from residential fires caused by smoking to no more than 8 percent.

**9.6f:** Reduce residential fire deaths among American Indians and Alaska Natives to no more than 1.4 per 100,000.

**9.6g:** Reduce residential fire deaths among Puerto Ricans to no more than 2.0 per 100,000.

**9.7:** Reduce hip fractures among people aged 65 and older so that hospitalizations for this condition are no more than 607 per 100,000 people.

**9.7a:** Reduce hip fractures among white women aged 85 and older so that hospitalizations for this condition are no more than 2,177 per 100,000.

**9.8:** Reduce nonfatal poisoning to no more than 88 emergency department treatments per 100,000 people.

**9.8a:** Reduce nonfatal poisoning among children aged 4 and younger to no more than 520 emergency department treatments per 100,000.

**9.9:** Reduce nonfatal head injuries so that hospitalizations for this condition are no more than 106 per 100,000 people.

**9.10:** Reduce nonfatal spinal cord injuries so that hospitalizations for this condition are no more than 5 per 100,000 people.

**9.10a:** Reduce nonfatal spinal cord injuries among males so that hospitalizations for this condition are no more than 7.1 per 100,000.

**9.11:** Reduce by 20 percent the incidence of secondary conditions (i.e., pressure sores) associated with traumatic spinal cord injuries.

*NOTE: Secondary conditions are defined as conditions causally related to a disabling condition (i.e., occurring as a result of the primary disabling condition) and can be either a pathology, an impairment, a functional limitation, or a disability.*

**9.12:** Increase use of safety belts and child safety seats to at least 85 percent of motor vehicle occupants.

**9.12a:** Increase use of child restraint systems among children aged 4 and younger involved in potentially fatal crashes to 70 percent.

**9.13:** Increase use of helmets to at least 80 percent of motorcyclists and at least 50 percent of bicyclists.

**9.14:** Extend to 50 States laws requiring safety belt and motorcycle helmet use for all ages.

**9.15:** Enact in 50 States laws requiring that new handguns be designed to minimize the likelihood of discharge by children.

**9.16:** Extend to 2,000 local jurisdictions the number whose codes address the installation of fire suppression sprinkler systems in those residences at highest risk for fires.

**9.17:** Increase the presence of functional smoke detectors to at least one on each habitable floor of all inhabited residential dwellings.

**9.18:** Provide academic instruction on injury prevention and control, preferably as part of comprehensive school health education, in at least 50 percent of public school systems (grades K–12).

**9.19\*:** Extend requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risks of injury.

Duplicate objective: 13.16

**9.20:** Increase to at least 50 the number of States that have design standards for markings, signing, and other characteristics of the roadway environment to improve the visual stimuli and protect the safety of older drivers and pedestrians.

**9.21:** Increase to at least 50 percent the proportion of primary care providers who routinely provide age-appropriate counseling on safety precautions to prevent unintentional injury.

**9.22:** Extend to 20 States the capability to link emergency medical services, trauma systems, and hospital data.

**9.23\*:** Reduce deaths caused by alcohol-related motor vehicle crashes to no more than 5.5 per 100,000 people.

Duplicate objective: 4.1

**9.23a\*:** Reduce deaths among American Indian and Alaska Native men caused by alcohol-related motor vehicle crashes to no more than 35.0 per 100,000.

Duplicate objective: 4.1a

**9.23b\*:** Reduce deaths among people aged 15–24 caused by alcohol-related motor vehicle crashes to no more than 12.5 per 100,000.

Duplicate objective: 4.1b

**9.24:** Extend to 50 States laws requiring helmets for bicycle riders.

**9.25\*:** Enact in 50 States and the District of Columbia laws requiring that firearms be properly stored to minimize access and the likelihood of discharge by minors.

Duplicate objective: 7.19

*NOTE: There are some variations across States in the age which defines minors. Additionally, in some States violation of the law is a misdemeanor; in others it is a felony. Penalties for violation also vary.*

**9.26:** Increase to 35 the number of States having a graduated driver licensing system for novice drivers and riders under the age of 18.

\*Duplicate objective.

# Priority Area 10 Occupational Safety and Health

## Background

Work-related injuries and illnesses continue to place an enormous burden on U.S. workers and the economy (1). In 1993, work-related injuries alone cost \$121 billion in medical care, lost productivity, and wages (2). While the human and financial costs of occupational injuries are extensive, efforts to reduce these injuries are often successful and cost-effective (3,4). Efforts to prevent workplace injuries and deaths continue to include research and other traditional public health approaches. In response to new concerns, such as workplace violence, workplace injury prevention is expanding to incorporate interventions from criminal justice and other disciplines (5).

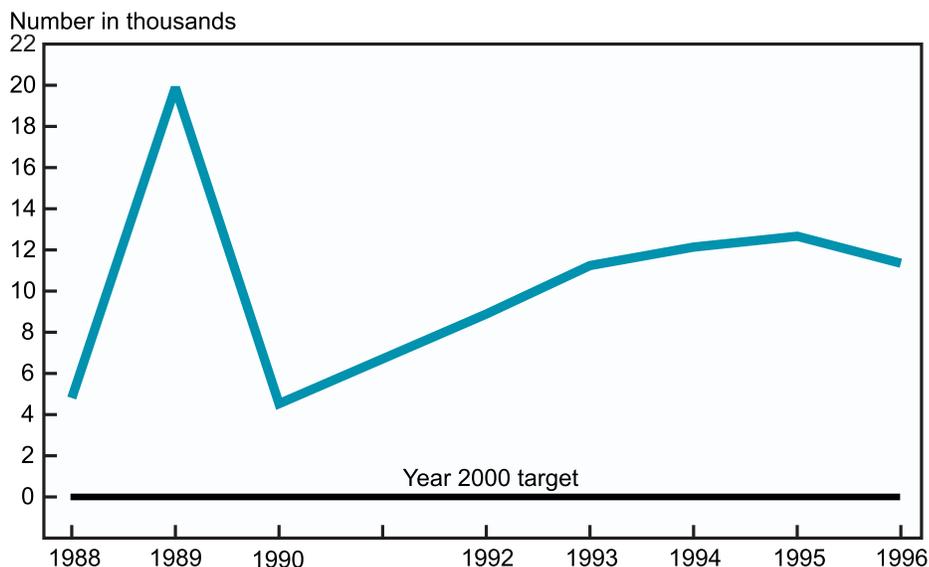
## Data Summary

### Highlights

Work-related injury deaths have declined slightly from a 1983–87 average of 6 per 100,000 workers to a rate of 4.9 in 1995; work-related injuries also decreased slightly from the 1983–87 average of 7.7 per 100 to 7.5 in 1995 (6). The leading cause of occupational deaths is motor vehicle accidents, which have shown little decline in recent years (6). Data from both the Bureau of Labor Statistics (BLS) and the National Institute for Occupational Safety and Health (NIOSH) indicate that death rates in the four highest risk industries (mining, construction, transportation, and agriculture) remain consistently higher than other industries.

Homicide was the second leading cause of work-related injury deaths in 1995, accounting for 993 deaths (16 percent of all work-related deaths). Work-related homicides decreased by 5 percent from the 1994 level; 75 percent were caused by firearms with 40 percent of the homicides occurring in retail or service work settings (for example, grocery stores and eating and drinking establishments) in the context of a robbery. Twelve percent of the

**Figure 11. Number of workers with blood lead concentrations greater than 25µg/dL: United States, 1988–90, 1992–96, and year 2000 target for objective 10.8**



	1988	1989	1990	1991	1992	1993	1994	1995	1996	Year 2000 target
Occupationally exposed workers . . .	4,804	19,892	4,531	---	8,886	11,240	12,137	12,664	11,353	0

--- Data not available.

NOTE: 1996 data are preliminary.

SOURCE: Centers for Disease Control and Prevention, National Institute of Occupational Safety and Health, Adult Elevated Blood Lead Level Registries.

work-related homicides in 1995 were attributable to the bombing of the Federal building in Oklahoma City (6). The revised reporting mechanism for occupation-related deaths is a more comprehensive method of data collection (see [Data Issues](#)), hence the decline in the work-related injury death rate is particularly noteworthy.

Many work-related deaths and injuries are among working youth. NIOSH data indicate that 70 workers age 18 and under are killed each year and that another 64,000 require treatment in hospital emergency rooms because of job-related injuries (7).

The rate of repetitive trauma injuries (10.3) has continued to increase from baseline levels. In 1992, 36 percent of these injuries, which resulted in lost work days, were attributable to carpal tunnel syndrome. Repetitive motion injuries affect workers in a broad range of occupations (8).

Data from the U.S. Air Force Hearing Conservation database show work-related noise exposure over 85 decibels (10.7) at a prevalence above that targeted for the year 2000. The Air Force has an aggressive program to control noise exposure, and its estimates are probably lower than the national work force exposure, estimated by NIOSH as approximately 25 percent (9). Considerable effort is needed if the objective is to be achieved by the end of the decade.

### Summary of Progress

Data for 9 (10.1, 10.2, 10.6, 10.9, 10.10, 10.13, and 10.17–10.19) of the 20 objectives in this priority area indicate progress toward the year 2000 targets. An additional three objectives (10.5, 10.11, and 10.14) have met their year 2000 targets. The data for six objectives (10.3, 10.4, 10.7, 10.8, 10.16, and 10.20) indicate movement away from the targets. It should be noted,

however, that additional NIOSH data related to objective 10.8 indicate that the number of workers with blood lead levels higher than that specified in the objective (but at the level specified in Occupational Safety and Health Administration regulations) has been declining. Also, the increase in the rate of workplace homicides (10.17) is, in part, attributable to the fact that updates are from a different source than the baseline (see [Data Issues](#)). No updates were available for two objectives (10.12 and 10.15).

## Data Issues

### Definitions

Objective 10.20 seeks to reduce the number of States with preemptive clean indoor air laws. Preemptive laws prevent local jurisdictions from enacting more stringent restrictions than the State law or restrictions that vary from the State law (10).

### Data Source Descriptions

Since 1992, the data for objective 10.1 (work-related injury deaths) have come from the Census for Fatal Occupational Injuries (CFOI), BLS. Prior to 1992, the data came from the Annual Survey on Occupational Injuries and Illnesses (ASOII). The latter relied on a single data source to capture occupational fatalities: a survey of employer logs of occupational deaths in approximately 50,000 workplaces. The survey undercounted occupational fatalities by as much as 60 percent (11). The CFOI uses a minimum of two data sources to identify occupational deaths. The primary sources are death certificates; State workers' compensation reports; coroner, medical examiner, or autopsy reports; and OSHA reports. The rates for 1993 were rounded to whole numbers by BLS. National Traumatic Occupational Fatalities (NTOF) data (reported by NIOSH) can also be used to monitor this objective, but NTOF uses only death certificates and may underestimate some categories of work-related injury deaths. CFOI and NTOF are also used to track objective 10.16 on workplace homicides.

The subobjective on adolescent work injuries (10.2f) is tracked with data from the National Electronic Injury Surveillance System (NEISS) under an interagency agreement between NIOSH

and the Consumer Product Safety Commission (CPSC) and does not utilize ICD-9 codes or other conventional injury reporting mechanisms. The data are collected in hospital emergency rooms and are limited to injuries attributable to a specific list of regulated products and devices. Hence, the data collected are subject to annual variations in what is specified in product safety or regulatory codes. The baseline for adolescent worker injuries is an extrapolation of data from the last 6 months of calendar year 1992 and is limited to workers age 15 through 17. The update is from fiscal year 1996. The main objective and the other subobjectives for 10.2 are tracked using data from ASOII.

The data used to report on the status of objective 10.7 (occupational noise exposure) come from the U.S. Air Force Hearing Conservation database. The data report exposures for civilian and military employees in a wide range of industrial and service occupations. NIOSH is currently developing the Sentinel Event Notification System for Occupational Risk (SENSOR) and the Occupational Hearing and Conservation database that will provide additional data to track this objective. While monitoring systems to track the objective are still under development, NIOSH has issued guidelines and sponsored workshops designed to address this important occupational health issue.

The data for objective 10.8 (occupational lead exposure) are from State registries that report adult blood lead levels and are displayed in [figure 11](#). The number of reporting States has increased since the baseline was established; this increase has affected the number of cases reported.

Objective 10.11 (State exposure standards for occupational lung disease) was achieved because Federal standards applicable in all 50 States were established for airborne asbestos fibers, cotton dust, coal mine dust, and silica dust. The parallel objective 10.17 (pneumoconiosis deaths) is tracked with the number of deaths as reported in the National Vital Statistics System (NVSS).

The 1985 and 1992 data for objectives 10.12 (worksite safety and health programs), 10.13 (worksite back injury prevention), and 10.18 (worksite smoking policies) are from the National Surveys of Worksite Health Promotion Activities, which were telephone surveys

of nongovernment worksites. Worksites were sampled, because different worksites within the same company could have different sets of health promotion activities. Both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update comes from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not include passive methods of health promotion (12,13).

Data for objective 10.15 (screening for occupational health exposure) are from the Primary Care Provider Surveys (PCPS). NIOSH, the Indian Health Service (IHS), and the Health Resources and Services Administration (HRSA) are working together to develop an additional tracking mechanism for this objective. The PCPS sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on inquiry about work-related risks represent the proportion of providers who routinely queried 81–100 percent of their patients about these risks. The data on counseling refer to the proportion of providers who routinely provided these services to patients who needed the services. The basis for the treatment or referral may be independent of the assessment made by the clinician.

### Comparability of Data Sources

The baseline for objective 10.9 (hepatitis immunizations) came from OSHA's Regulatory Impact Analysis; the updates are from CDC's National Center for Infectious Diseases. The baseline for objective 10.10 (State occupational health and safety plans) came from the Public Health Foundation's unintentional injuries survey; the update is from NIOSH. For both objectives, the data may not be comparable and statements about trends must be made with caution.

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**Table 10. Occupational safety and health objective status**

Objective	Baseline	Baseline	1990	1991	1992	1993	1994	1995	Target
	year	Baseline	1990	1991	1992	1993	1994	1995	2000
<b>10.1 Work-related injury deaths (per 100,000 full-time workers)<sup>1</sup></b> . . . . .	1983–87	6.0	4.3	4.3	5.0	5.0	5.0	4.9	4.0
a. Mine workers . . . . .	1983–87	30.3	<sup>2</sup> 17.3	15.6	27.0	26.0	27.0	25.0	21
b. Construction workers . . . . .	1983–87	25.0	20.6	16.6	14.0	14.0	15.0	14.6	17
c. Transportation workers . . . . .	1983–87	15.2	10.0	8.1	13.0	13.0	13.0	13.1	10
d. Farm workers . . . . .	1983–87	14.0	23.8	---	24.0	26.0	27.0	22.5	9.5
<b>10.2 Nonfatal work-related injuries (per 100 full-time workers)</b> . . . . .	1983–87	7.7	8.3	7.9	8.3	7.9	8.4	7.5	6
a. Construction workers . . . . .	1983–87	14.9	14.1	12.8	12.9	12.0	11.8	10.4	10
b. Nursing and personal care workers . . . . .	1983–87	12.7	15.4	15.0	18.2	16.9	16.5	17.8	9
c. Farm workers . . . . .	1983–87	12.4	12.3	10.2	11.0	10.9	9.7	9.9	8
d. Transportation workers . . . . .	1983–87	8.3	8.4	9.1	8.8	9.1	9.3	8.7	6
e. Mine workers . . . . .	1983–87	8.3	8.1	7.1	7.0	6.5	6.3	6.0	6
f. Adolescent workers . . . . .	1992	<sup>3</sup> 5.8	...	...	...	---	---	<sup>4</sup> 4.8	3.8
<b>10.3 Cumulative trauma disorders (per 100,000 full-time workers)</b> . . . . .	1987	100	241	297	368	383	411	378	60
a. Manufacturing industry workers . . . . .	1987	355	867	1,046	1,241	1,267	---	---	150
b. Meat product workers . . . . .	1987	3,920	8,245	8,802	8,475	8,532	---	---	2,000
<b>10.4 Occupational skin disorders (per 100,000 full-time workers)</b> . . . . .	1983–87	64	79	77	82	76	81	79	55
<b>10.5* Hepatitis B infections among occupationally exposed workers (number of cases)</b> . . . . .	1987	3,090	1,258	2,576	1,923	727	506	407	623
<b>10.6 Worksite occupant protection system mandates</b> . . . . .	1992	82.4%	...	...	...	---	---	85%	95%
<b>10.7 Occupational noise exposure<sup>5</sup> (average noise levels exceeding 85 db)</b> . . . . .	1989	16%	20.5%	23.8%	21.5%	19.9%	---	---	15%
<b>10.8 Occupational lead exposure (blood concentration greater than 25 µg/dL)</b> . . . . .	1988	<sup>6</sup> 4,804	<sup>7</sup> 4,531	---	<sup>8</sup> 8,886	<sup>9</sup> 11,240	<sup>10</sup> 12,137	<sup>10,11</sup> 12,664	0
<b>10.9* Hepatitis B immunizations among occupationally exposed workers</b> . . . . .	1989	37%	---	---	50%	---	67%	---	90%
<b>10.10 Number of States with occupational health and safety plans</b> . . . . .	1989	10	---	---	23	---	---	---	50
<b>10.11 Number of States with occupational lung disease exposure standards</b> . . . . .	...	<sup>12</sup> 50	50	50	50	50	50	50	50
<b>10.12 Worksite health and safety programs</b> . . . . .	1992	63.8%	...	...	...	---	---	---	70%
<b>10.13 Worksite back injury prevention and rehabilitation programs</b> . . . . .	1985	28.6%	---	---	32.5%	---	---	---	50%
Back injury classes, workshops, or lectures . . . . .	...	---	---	---	24%	---	---	26%	...
<b>10.14 Number of States with programs for small business safety and health</b> . . . . .	1991	26	...	...	---	<sup>13</sup> 50	---	---	50
<b>10.15 Clinician assessment of occupational health exposures</b> . . . . .	...	---	---	---	---	---	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients Inquiry about work-related health risks (16 years and over)									
Pediatricians . . . . .	1992	7%	...	...	...	---	---	---	75%
Nurse practitioners . . . . .	1992	14%	...	...	...	---	---	---	75%
Obstetricians/gynecologists . . . . .	1992	6%	...	...	...	---	---	---	75%
Internists . . . . .	1992	14%	...	...	...	---	---	---	75%
Family physicians . . . . .	1992	7%	...	...	...	---	---	---	75%
Counseling about work-related health risks									
Pediatricians . . . . .	1992	8%	...	...	...	---	---	---	75%
Nurse practitioners . . . . .	1992	10%	...	...	...	---	---	---	75%
Obstetricians/gynecologists . . . . .	1992	10%	...	...	...	---	---	---	75%
Internists . . . . .	1992	9%	...	...	...	---	---	---	75%

**Table 10. Occupational safety and health objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Family physicians . . . . .	1992	8%	...	...	...	---	---	---	75%
<b>10.16 Work-related homicides</b>									
Full-time workers (per 100,000) . . . . .	1980–89	<sup>14</sup> 0.7	---	---	<sup>15</sup> 0.9	<sup>15</sup> 0.8	<sup>15</sup> 0.9	<sup>15</sup> 0.8	0.5
<b>10.17 Occupational lung disease deaths (age adjusted per 1,000,000)<sup>16</sup></b> . . . . .	1990	9.6	...	---	---	---	---	---	7.7
Number of pneumoconiosis deaths among people 15 years and over <sup>17</sup> . . . . .	...	---	3,644	3,486	3,230	3,237	3,127	---	...
<b>10.18* Worksites with smoking policies</b>									
Policy that bans smoking or limits it to separately ventilated areas									
50 or more employees . . . . .	1985	27%	---	---	59%	---	---	---	100%
Any smoking policy									
Medium and large companies . . . . .	1987	54%	---	85%	---	---	---	---	100%
50 or more employees . . . . .	...	---	---	---	86%	---	---	87%	...
<b>10.19* Number of States with comprehensive laws for clean indoor air in:</b>									
Private workplaces . . . . .	1995	<sup>a1</sup>	...	...	...	...	...	<sup>19</sup> 1	<sup>15</sup> 51
Public workplaces . . . . .	1995	<sup>a9</sup>	...	...	...	...	...	<sup>19</sup> 9	<sup>15</sup> 51
Restaurants . . . . .	1995	<sup>2</sup>	...	...	...	...	...	<sup>19</sup> 3	<sup>15</sup> 51
Public transportation <sup>18</sup> . . . . .	1995	<sup>a17</sup>	...	...	...	...	...	<sup>19</sup> 17	<sup>15</sup> 51
Hospitals . . . . .	1995	<sup>a8</sup>	...	...	...	...	...	<sup>19</sup> 8	<sup>15</sup> 51
Day care centers . . . . .	1995	<sup>21</sup>	...	...	...	...	...	<sup>19</sup> 21	<sup>15</sup> 51
Grocery stores . . . . .	1995	<sup>a4</sup>	...	...	...	...	...	<sup>19</sup> 4	<sup>15</sup> 51
<b>10.20* Preemptive clean indoor air laws</b>									
States with laws . . . . .	1995	17	...	...	...	...	...	<sup>19</sup> 18	0

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1992–95 data collected by Census of Fatal Occupational Injuries.

<sup>2</sup>1989 data.

<sup>3</sup>Data are for the last 6 months of 1992.

<sup>4</sup>Data are for the fiscal year 1996.

<sup>5</sup>Data represent a cross-section of civilian and military employees.

<sup>6</sup>Data from 7 States.

<sup>7</sup>Data from 13 States.

<sup>8</sup>Data from 18 States.

<sup>9</sup>Data are from 20 States.

<sup>10</sup>Data from 23 States; 1996 data are preliminary.

<sup>11</sup>Preliminary data for 1996 are 11,353.

<sup>12</sup>Pursuant to the enactment of the Federal Coal Mine Health and Safety Act of 1969 (PL91–173, amended by PL95–164) and the Occupational Safety and Health Act of 1970 (PL91–596), Federal Standards have been established for occupational exposure to airborne asbestos fibers, cotton dust, coal mine dust, and silica dust. These exposure limits apply in all 50 States and U.S. Territories.

<sup>13</sup>All States now have OSHA or State-funded small business programs.

<sup>14</sup>Data are from the National Traumatic Occupational Fatalities, CDC, NIOSH.

<sup>15</sup>Data are from the Census of Fatal Occupational Injuries, BLS.

<sup>16</sup>ICD–9 codes: 500–502, 504.

<sup>17</sup>ICD–9 codes: 500–505.

<sup>18</sup>Includes District of Columbia.

<sup>19</sup>1996 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
10.1, 10.1a–d	Baseline: Annual Survey of Occupational Injuries and Illnesses, DOL, BLS. Updates: Census of Fatal Occupational Injuries, DOL, BLS.
10.2, 10.2a–e	Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
10.2f	National Electronic Injury Surveillance System, CPSC.
10.3, 10.3a–b	Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
10.4	Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
10.5*	Viral Hepatitis Surveillance System, CDC, NCID.
10.6	Baseline: National Survey of Worksite Health Promotion Activities, OASH, ODPHP. Updates: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
10.7	U.S. Air Force Hearing Conservation database, DoD.
10.8	Adult Elevated Blood Lead Level Registries, CDC, NIOSH.
10.9*	Baseline: Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA. Updates: National Center for Infectious Diseases, CDC.
10.10	Baseline: Association of State and Territorial Health Officials Reporting System: Unintentional Injuries Survey, PHF. Updates: DOL, OSHA.
10.11	CDC, NIOSH.
10.12	National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
10.13	National Survey of Worksite Health Promotion Activities, OASH, ODPHP; Updates: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
10.14	CDC, NIOSH.
10.15	Primary Care Provider Surveys, OASH, ODPHP.
10.16	Baseline: National Traumatic Occupational Fatalities (NTOF) CDC, NIOSH. Updates: Census of Fatal Occupational Injuries (CFOI), DOL, BLS.
10.17	National Vital Statistics System, CDC, NCHS.
10.18*	For worksites with 50 or more employees, National Survey of Worksite Health Promotion Activities, OASH, ODPHP. For medium and large companies, Nationwide Survey on Smoking in the Workplace, CDC, OSH; Bureau of National Affairs; American Society for Personnel Administration. Updates: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
10.19*	Office of Smoking and Health Legislative Tracking, CDC, NCCDPHP.
10.20*	Legislative Tracking System, CDC; State Cancer Legislative Database, NCI.

\*Duplicate objective. See full text of objective following this table.

# Occupational Safety and Health Objectives

**10.1:** Reduce deaths from work-related injuries to no more than 4 per 100,000 full-time workers.

**10.1a:** Reduce deaths among mine workers from work-related injuries to no more than 21 per 100,000 full-time workers.

**10.1b:** Reduce deaths among construction workers from work-related injuries to no more than 17 per 100,000 full-time workers.

**10.1c:** Reduce deaths among transportation workers from work-related injuries to no more than 10 per 100,000 full-time workers.

**10.1d:** Reduce deaths among farm workers from work-related injuries to no more than 9.5 per 100,000 full-time workers.

**10.2:** Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.2a:** Reduce work-related injuries among construction workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 10 cases per 100 full-time workers.

**10.2b:** Reduce work-related injuries among nursing and personal care workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 9 cases per 100 full-time workers.

**10.2c:** Reduce work-related injuries among farm workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 8 cases per 100 full-time workers.

**10.2d:** Reduce work-related injuries among transportation workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.2e:** Reduce work-related injuries among mine workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.2f:** Reduce work-related injuries among adolescent workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 3.8 cases per 100 full-time workers.

**10.3:** Reduce cumulative trauma disorders to an incidence of no more than 60 cases per 100,000 full-time workers.

**10.3a:** Reduce cumulative trauma disorders among manufacturing industry workers to an incidence of no more than 150 cases per 100,000 full-time workers.

**10.3b:** Reduce cumulative trauma disorders among meat product workers to an incidence of no more than 2,000 cases per 100,000 full-time workers.

**10.4:** Reduce occupational skin disorders or diseases to an incidence of no more than 55 per 100,000 full-time workers.

**10.5\*:** Reduce hepatitis B infections among occupationally exposed workers to an incidence of no more than 623 cases.

Duplicate objective: 20.3e

**10.6:** Increase to at least 95 percent the proportion of worksites with 50 or more employees that mandate employee use of occupant protection systems, such as seat belts, during all work-related motor vehicle travel.

**10.7:** Reduce to no more than 15 percent the proportion of workers exposed to average daily noise levels that exceed 85 dBA.

**10.8:** Eliminate exposures which result in workers having blood lead concentrations greater than 25 ug/dL of whole blood.

**10.9\*:** Increase hepatitis B immunization levels to 90 percent among occupationally exposed workers.

Duplicate objective: 20.11

**10.10:** Implement occupational safety and health plans in 50 States for the identification, management, and

prevention of leading work-related diseases and injuries within the State.

**10.11:** Establish in 50 States exposure standards adequate to prevent the major occupational lung diseases to which their worker populations are exposed (byssinosis, asbestosis, coal workers' pneumoconiosis, and silicosis).

**10.12:** Increase to at least 70 percent the proportion of worksites with 50 or more employees that have implemented programs on worker health and safety.

**10.13:** Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer back injury prevention and rehabilitation programs.

**10.14:** Establish in 50 States either public health or labor department programs that provide consultation and assistance to small businesses to implement safety and health programs for their employees.

**10.15:** Increase to at least 75 percent the proportion of primary care providers who routinely elicit occupational health exposures as a part of patient history and provide relevant counseling.

**10.16:** Reduce deaths from work-related homicides to no more than 0.5 per 100,000 full-time workers.

**10.17:** Reduce the overall age-adjusted mortality rate for four major preventable occupational lung diseases (byssinosis, asbestosis, coal workers' pneumoconiosis, and silicosis) to 7.7 per 100,000.

**10.18\*:** Increase to 100 percent the proportion of worksites with a formal smoking policy that prohibits or severely restricts smoking at the workplace.

Duplicate objective: 3.11

**10.19\*:** Enact in 50 States and the District of Columbia comprehensive laws on clean indoor air that prohibit smoking or limit it to separately ventilated areas in the workplace and enclosed public places.

Duplicate objective: 3.12

**10.20\*:** Reduce to zero the number of States that have clean indoor air laws preempting stronger clean indoor air laws on the local level.

Duplicate objective: 3.25

\*Duplicate objective.

# Priority Area 11 Environmental Health

## Background

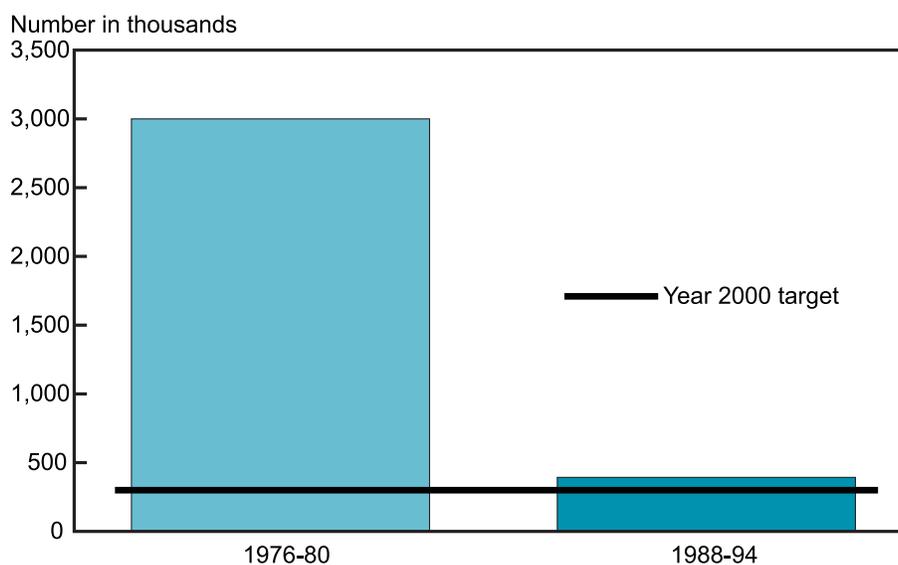
Environmental factors play a fundamental role in health and disease. One of the first public health interventions to control disease (cholera) succeeded through control of a contaminated public water supply (1). Ironically, this historical problem of waterborne disease, has resurrected as a very modern challenge in terms of research in disease etiology, and cost-effective health management. It not only continues to affect large numbers of people in modern urban settings, but the methods for preventing waterborne disease are coming under increased scrutiny as possible health threats themselves (2).

Continued emphasis on sanitation, vector control, and pollution prevention are needed to deal with the complex interaction of both chemical and biological threats to health. Also needed is a greater understanding of the scientific relationship of toxic exposure on human health (3). The monitoring of public exposure to increasing numbers of toxins and research into the relationship of toxic exposure to disease are important, but confounded due to the complexities of measuring the level of toxins in the environment, the relative exposure of the population and individual characteristics that mitigate the effects of exposure (4). While data suggest real differences in the concentrations of population race and ethnic subgroups within more polluted areas, individual factors—such as exposure and life style—complicate evaluation of the health effects of the pollutants (5).

Research may clarify current ambiguity about exposure thresholds. Dioxin continues to be the focus of research (6), and lead has been shown to have toxic effects at even lower exposure levels than originally believed (7,8).

Research will aid priority setting among environmental and public health interventions. In addition to assessing and redressing the effects of pollution, research-based initiatives in manufacturing should reduce the

**Figure 12. Number of children 6 months–5 years with blood lead levels exceeding 15 µg/dL: United States, 1976–80, 1988–94, and year 2000 target for objective 11.4**



	1976–80	1988–94	Year 2000 target
Children 6 months–5 years . . . . .	3 million	393,000	300,000

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

introduction of waste into the environment (9). While research continues to offer new technologies to advance recycling, both legislation and marketing have lagged somewhat, creating challenges to recycling efforts (10).

The 17 objectives in this priority area cover a broad range of exposure media, including air, water, and soil. They also address a variety of pollutants, such as radon, toxic chemicals, and lead.

## Data Summary

### Highlights

The prevalence of blood lead levels exceeding 15 and 25 micrograms per deciliter (objective 11.4) has dropped dramatically since the baselines were established for this objective (see figure 12). The data indicate that three million children 6 months–5 years had blood lead levels exceeding 15 micrograms per deciliter in 1984; this compares with less than 400,000

children 1–5 years of age during 1988–91. While there are slight differences in the methods used in the two surveys (see [Data Issues](#)), the data strongly support progress in reducing this environmental threat to children. Unfortunately, research has also identified that the health threat from lead may occur at even lower levels than those monitored by the year 2000 objectives (10 micrograms/deciliter) (8). Some of the decline in blood lead levels may be associated with declines in airborne lead (which is monitored in objective 11.5). While the population living in counties that did not exceed the lead standard has remained relatively stable during the monitoring period for *Healthy People 2000*, the ambient air levels have dropped between the two monitoring periods for blood lead levels reported in the National Health and Nutrition Examination Survey II (NHANES II) and the National Health and Nutrition Examination Survey III (NHANES III).

Additional reductions in blood lead may be associated with efforts to

educate the public about the risks from lead and to reduce lead levels in the home (8). In 1996, the Environmental Protection Agency (EPA) promulgated a regulation that requires disclosure if lead paint is present in all houses built before 1978 (objective 11.13). Data on lead paint testing (11.11) suggest increased awareness of this threat.

The proportion of people who know what radon is and who reported testing their homes for radon (11.6) dropped slightly between 1992 and 1993, but remains nearly double that reported in 1990. While only a fraction of these homes exceed the level identified as dangerous by the EPA (four picocuries), a large proportion of these homeowners have taken measures to mitigate the effects. Both the greater awareness of radon and the higher level of testing may in part be consequences of Government-sponsored education and testing programs (11). Data for objective 11.13 (radon disclosure) show that the number of States requiring disclosure of radon test results at the time of home sales has doubled between 1993 and 1995. While debate on the etiology of radon-related cancer continues, recent research on occupational exposure supports the contention that radon remains a health risk and supports the importance of the *Healthy People 2000* objectives that focus on this environmental issue (12).

The proportions of rivers, lakes, and estuaries supporting the beneficial uses for fishing and recreation have increased between 1992 and 1994 (11.10).

## Summary of Progress

Of the 17 environmental health objectives, 11 showed some progress toward the year 2000 targets (11.4–11.7, 11.11–11.17). Objective 11.3 met the year 2000 target. The data for two objectives (11.1 and 11.2) indicate movement away from the targets. The trends for 11.8 and 11.10 were mixed. Although showing slight fluctuations over the years of tracking, 1995 data show no change since baseline for objective 11.9.

## Data Issues

### Definitions

Data for objective 11.1 (asthma hospitalizations) come from the National Hospital Discharge Survey (NHDS)

maintained by the National Center for Health Statistics (NCHS). Data for the survey are obtained from approximately 480 hospitals throughout the United States. Data on race (required for objective 11.1a asthma hospitalizations for blacks and nonwhites) are missing from roughly 17 percent of the discharge records in the survey; this omission may yield rates that underestimate hospitalizations for this special population objective.

The baseline data for 11.2 (mental retardation) were revised to be comparable with data from the Metropolitan Atlanta Developmental Disabilities Surveillance Program, which uses school counts of children classified as mentally retarded. This system will be used to track the objective.

Data for 11.3 are from CDC's Waterborne Surveillance System, which compiles data from the States; reporting is voluntary. Variations in the level of reporting can produce large fluctuations in the number of outbreaks reported from year to year. An outbreak can be defined when as few as two people are affected by waterborne disease or poisoning; however, the numbers of people affected by the one outbreak in 1994 (the year the target was met) are as high as 400,000 people. Epidemiological evidence is used to link the outbreak to water as a cause.

The updates for 11.4 are from NHANES III, phase I (1988–91). The children tested in NHANES III were 1–5 years of age compared with 6 months–5 years of age from the 1984 baseline projected from NHANES II (1976–80) data. Additionally, the special population was identified using the Bureau of Census Poverty Income Ratio rather than a discrete family income level.

Data for 11.5 (air quality) are affected by a range of meteorological factors (for example, temperature and wind) and may vary considerably on an annual basis. The data are also limited by the fact that not all counties have monitoring stations. Individual exposure within counties varies greatly and health effects from poor air quality are mitigated by a wide range of individual factors (for example, personal sensitivity to pollutants, other health conditions, and use of health services). Additionally, health effects from some pollutants may occur at levels lower than those specified in the National Ambient Air Quality Standards (NAAQS).

Data for 11.7 (toxic agent release) are from the Toxic Release Inventory maintained by EPA. The inventory estimates of prior year releases are provided to EPA by industry that periodically revises these estimates. These revisions are permitted under the Community Right to Know Act of 1986; however, they complicate monitoring of this objective.

Although drinking water quality has improved, data for 11.9 (safe drinking water) have remained relatively unchanged for the past 5 years because of an increase in the number of maximum contaminant level (MCL) standards used to define safe drinking water. For the past several years, compliance has also been based on reporting and treatment standards, as well as contaminants. Additionally, the proportions reported for this objective reflect the proportion of community water systems, rather than the proportion of the population (which is stated in the objective). The proportion of the population served by community water systems has increased over the years; currently they serve nearly 98 percent of the population.

Data for objective 11.15 (hazardous waste recycling) include both permanent (year round) and temporary (1 day) recycling programs, so trend data must be interpreted carefully.

Data for 11.17 come from the National Health Interview Survey (NHIS); the definition of regular exposure to tobacco smoke is defined as the occurrence of tobacco smoking anywhere in the home for 3 or more days a week.

## Proxy Data

Updates for 11.6 (radon testing) come from the NHIS and represent the proportion of survey respondents who reported that they knew what radon was and had tested their home for radon; the objective calls for the proportion of homes that had been tested. The data for children in 1991, 1993, and 1994 represent the proportion of children 6 years of age and under in homes where the respondent reported testing for radon. The data on smokers for 1991, 1993, and 1994 were limited to those who reported smoking at home 3 or more days a week.

Data for 11.11 (lead paint testing) are also provided by the NHIS and represent the proportion of people who reported testing their homes (if built

before 1950) for lead paint, rather than the proportion of homes built before 1950 tested for lead-based paint as called for in the objective.

## Data Availability

There will be no further updates for tracking disclosure of lead paint (objective 11.13) beyond 1991. Federal regulations promulgated in 1996 require disclosure of the presence of lead paint in all pre-1978 houses in all 50 States during sales or leasing.

The Agency for Toxic Substances and Disease Registry (ATSDR) reported that in 1995, EPA had followed 90 percent of their recommendations at National Priorities List (NPL) sites with health concerns or hazards where ATSDR had made recommendations (objective 11.14). This level of compliance, however, will vary from year to year because the number of NPL sites continues to vary and there may be a lag between the time that sites are listed; ATSDR makes recommendations and EPA acts on those recommendations.

The data for objective 11.16 (sentinel environmental diseases) are limited to plans related to childhood lead poisoning. Other sentinel diseases will be tracked as data become available. Additionally, CDC is working with other Government and nongovernment organizations to develop guidelines to improve State capacity to conduct environmental surveillance.

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Table 11. Environmental health objective status

Objective	Baseline	Baseline	1990	1991	1992	1993	1994	1995	Target
	year								2000
<b>11.1 Asthma hospitalizations (per 100,000)</b>	1987	188	192	196	183	183	174	194	160
a. Blacks and other nonwhites	1987	334	340	349	380	290	353	368	265
b. Children 14 years and under	1987	284	308	339	344	280	295	369	225
c. Women 25 years and over	1988	229	235	235	216	198	202	219	183
<b>11.2* Mental retardation (per 1,000 children)</b>									
Children 10 years with IQ less than 50	1985–87	<sup>a</sup> 3.1	---	---	<sup>1</sup> 4.0	---	---	---	2.0
<b>11.3 Waterborne diseases (number of outbreaks)</b>	1988	16	14	15	19	17	11	---	11
a. People served by community water systems	1988	4	3	2	5	9	5	---	2
<b>11.4 Blood lead levels among children</b>									
Levels exceeding 15 µg/dL	1984	3 million	---	---	---	---	<sup>2</sup> 393,000	---	300,000
Levels exceeding 25 µg/dL	1984	234,000	---	---	---	---	<sup>2</sup> 59,000	---	0
a. Inner-city low-income black children									
Levels exceeding 15 µg/dL	1984	234,900	---	---	---	---	<sup>3</sup> 93,000	---	75,000
Levels exceeding 25 µg/dL	1984	36,700	---	---	---	---	<sup>3</sup> 18,000	---	0
<b>11.5 Proportion of people in counties that have not exceeded standards for air pollutants</b>									
Total population (any of the following pollutants)	1988	49.7%	69.4%	65.3%	78.4%	76.5%	75.1%	67.1%	85%
Ozone	1988	53.6%	74.2%	72.0%	82.1%	79.5%	79.9%	71.5%	...
Carbon monoxide	1988	87.8%	91.1%	92.0%	94.3%	95.4%	93.9%	95.2%	...
Nitrogen dioxide	1988	96.6%	96.5%	96.5%	100%	100%	100%	100%	...
Sulfur dioxide	1988	99.3%	99.4%	98.0%	100%	99.4%	100%	100%	...
Particulates	1988	89.4%	92.3%	91.4%	89.6%	97.5%	94.8%	90.2%	...
Lead	1988	99.3%	97.8%	94.1%	98.1%	97.8%	98.3%	98.1%	...
<b>11.6 Proportion of homes with radon testing</b>	1989	Less than 5%	<sup>4</sup> 5.6%	<sup>4</sup> 8.7%	---	<sup>4</sup> 11.4%	<sup>4</sup> 11.0%	---	40%
a. Homes with smokers and former smokers	...	---	<sup>5</sup> 2.2%	<sup>5</sup> 6.9%	---	<sup>5</sup> 10.3%	<sup>5</sup> 8.8%	---	50%
b. Homes with children	...	---	<sup>6</sup> 6.8%	<sup>7</sup> 10.7%	---	<sup>7</sup> 13.8%	<sup>7</sup> 13.1%	---	50%
<b>11.7 Toxic agent releases</b>									
DHHS list of carcinogens (billion pounds)	1988	<sup>a</sup> 0.35	0.28	0.23	0.21	0.19	0.18	0.17	0.12
ATSDR list of the most toxic chemicals (billion pounds)									
275 substances	1988	<sup>a</sup> 2.15	1.75	2.04	1.39	1.64	1.04	1.02	1.08
<b>11.8 Solid waste (average pounds per person per day)</b>	1988	4.0	4.3	---	---	4.4	---	4.4	4.3
After recovery (recycling and composites)	1998	3.5	3.6	---	---	3.4	---	3.4	3.2
<b>11.9 People receiving safe drinking water<sup>8</sup></b>	...	---	---	---	---	---	---	---	85%
Proportion of community water systems meeting standards	1988	<sup>a</sup> 73%	73%	72%	72%	68%	66%	73%	...
Number of Maximum Contaminant Level Standards in force <sup>9</sup>	...	---	36	30	57	81	81	81	...
<b>11.10 Waters supporting beneficial uses</b>									
Rivers supporting:									
Consumable fish	1992	89%	...	...	...	---	95%	---	94%
Recreational activities	1992	71%	...	...	...	---	77%	---	85%
Lakes supporting:									
Consumable fish	1992	64%	...	...	...	---	82%	---	82%
Recreational activities	1992	77%	...	...	...	---	81%	---	88%

**Table 11. Environmental health objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Estuaries supporting:									
Consumable fish .....	1992	94%	...	...	...	---	92%	---	97%
Recreational activities .....	1992	83%	...	...	...	---	85%	---	91%
<b>11.11 Homes tested for lead-based paint .....</b>	1990	<sup>10</sup> Less than 5%	...	---	---	<sup>10</sup> 9%	---	---	50%
<b>11.12 Number of States with construction standards to minimize radon concentrations .....</b>	1989	1	3	---	---	<sup>11</sup> 3	---	---	35
<b>11.13 Disclosure of lead and radon concentrations (number of States)</b>									
States requiring disclosure of lead-based paint and radon .....	1989	1	1	3	---	---	---	---	30
States requiring disclosure of lead-based paint .....	1989	2	2	5	---	---	---	<sup>12,13</sup> 50	30
States requiring disclosure of radon .....	1989	1	3	5	---	13	---	<sup>14</sup> 26	30
<b>11.14 Significant health risks from hazardous waste sites (Indicators)</b>									
Sites on National Priority List .....	1990	<sup>a</sup> 1,079	...	---	1,199	---	<sup>15</sup> 1,232	<sup>121</sup> 210	...
Sites where ATSDR recommendations were implemented .....	...	---	---	---	---	---	---	<sup>16</sup> 90%	100%
<b>11.15 Recyclable materials and household hazardous waste programs</b>									
Population served by curbside recycling .....	1991	26%	---	---	30%	39%	42%	46%	50%
Permanent and temporary household hazardous waste recycling programs <sup>17</sup> .....	1991	802	---	---	867	1,223	---	---	1,529
Permanent programs .....	1991	96	---	---	---	---	---	---	215
Temporary programs .....	1991	706	---	---	---	---	---	---	1,314
States with at least one program .....	...	---	<sup>18</sup> 28	50	50	50	50	50	...
<b>11.16 Number of States that track sentinel environmental diseases</b>									
Plans established and monitored .....	1990	0	...	---	---	---	---	---	35
Federal funds for surveillance <sup>19</sup> .....	...	---	---	---	8	10	19	<sup>20</sup> 27	...
<b>11.17* Children's exposure to smoke at home</b>									
Percent of households with one or more children 6 years and under with a cigarette smoker in household .....	1986	39%	---	32%	---	27%	27%	---	20%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1991–92 data.

<sup>2</sup>1988–94 NHANES III phase I data (1988–91) for children 1–5 years were 503,000 for levels exceeding 15 µg/dL and 93,000 for levels exceeding 25 µg/dL.

<sup>3</sup>1988–94 NHANES data for non-Hispanic black children 6 months–5 years from families with poverty income ratio of less than 1.3 residing in central cities of standard metropolitan statistical areas.

<sup>4</sup>Data represent the proportion of people who reported that they knew what radon was and had tested their homes for radon.

<sup>5</sup>Data represent the proportion of people who reported that they smoked in their homes 4 or more days a week, knew what radon was, and had tested their homes for radon.

<sup>6</sup>Data represent the proportion of people who reported that they had children age 16 years or under, knew what radon was, and had tested their homes for radon.

<sup>7</sup>Data represent the proportion of people who reported that they had children age 6 years or under, knew what radon was, and had tested their homes for radon.

<sup>8</sup>Community water systems that met standards served 98% of the U.S. population in 1995.

<sup>9</sup>Due to the continuing increase in MCL's, the proportion of people receiving water that meets safe standards has remained relatively constant. The number of MCL's in 1989 was 31.

<sup>10</sup>Data represent the proportion of people with homes built before 1950 who report that their paint had been analyzed for lead content.

<sup>11</sup>EPA developed model standards for control of radon in buildings in 1993. Publication of these standards should enhance progress for this objective.

<sup>12</sup>1996 data.

<sup>13</sup>In 1996, EPA promulgated regulation requiring disclosure of lead-based paint in all pre-1987 housing during sales or leasing.

<sup>14</sup>Includes 25 States and one U.S. Territory.

<sup>15</sup>1995 data.

<sup>16</sup>90% represents 253 sites.

<sup>17</sup>Permanent programs are fixed locations where hazardous waste can be recycled year round; temporary programs are short-term sites where hazardous waste can be recycled. There has been a steady increase in permanent programs (from 27 in 1988 to 96 in 1991), whereas number of temporary programs has declined.

<sup>18</sup>1987 data.

<sup>19</sup>Data relate to childhood lead poisoning. However, a 1993 survey by the Public Health Foundation reported that 12 States track pesticide poisoning, 9 track mercury poisoning, 8 track arsenic poisoning, 7 track cadmium poisoning, 6 track acute chemical poisoning, and 4 track carbon monoxide poisoning.

<sup>20</sup>In 1996, 31 States were funded.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
11.1, 11.1a–c	National Hospital Discharge Survey, CDC, NCHS.
11.2*	Baseline: Metropolitan Atlanta Developmental Disabilities Study, CDC, NCEH. Update: Metropolitan Atlanta Developmental Disabilities Surveillance Program, CDC, NCEH.
11.3, 11.3a	Waterborne Surveillance System, CDC, NCEH.
11.4, 11.4a	National Health and Nutrition Examination Survey, CDC, NCHS.
11.5	National Air Quality and Emissions Trends Report, AIRS, OAR, EPA.
11.6	Baseline: EPA, OAR, Office of Radiation Programs.
11.6a,b	National Health Interview Survey, CDC, NCHS.
11.7	Toxic Chemical Release Inventory, EPA, OPPTS.
11.8	Characterization of Municipal Solid Waste in the United States, EPA, OSWER.
11.9	EPA Federal Reporting Data Base; Office of Ground Water and Drinking Water, EPA.
11.10	National Water Quality Inventory, EPA, Office of Water.
11.11	National Health Interview Survey, CDC, NCHS.
11.12	Environmental Law Institute.
11.13	Alliance to End Childhood Lead Poisoning, Environmental Law Institute.
11.14	National Priorities List, EPA, OSWER; HAZDAT, CDC, ATSDR.
11.15	BioCycle Journal of Waste Recycling; Wastewatch Center.
11.16	CDC, NCEH.
11.17*	Baseline: Adult Use of Tobacco Survey, CDC, NCCDHP. Update: National Health Interview Survey, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Environmental Health Objectives

**11.1:** Reduce asthma morbidity, as measured by a reduction in asthma hospitalizations to no more than 160 per 100,000 people.

**11.1a:** Reduce asthma morbidity among blacks and other nonwhites, as measured by a reduction in asthma hospitalizations to no more than 265 per 100,000 people.

**11.1b:** Reduce asthma morbidity among children, as measured by a reduction in asthma hospitalizations to no more than 225 per 100,000 people.

**11.1c:** Reduce asthma morbidity among women, as measured by a reduction in asthma hospitalizations to no more than 183 per 100,000 people.

**11.2\*:** Reduce the prevalence of serious mental retardation among school-aged children to no more than 2 per 1,000 children.

Duplicate objective: 17.8

**11.3:** Reduce outbreaks of waterborne disease from infectious agents and chemical poisoning to no more than 11 per year.

*NOTE: Includes only outbreaks from water intended for drinking. Community water systems are public or investor-owned water systems that serve large or small communities, subdivisions, or trailer parks with at least 15 service connections or 25 year-round residents.*

**11.3a:** Reduce outbreaks of waterborne disease from infectious agents and chemical poisoning among people served by community water systems to no more than 2 per year.

**11.4:** Reduce the prevalence of blood lead levels exceeding 15 ug/dL and 25 ug/dL among children aged 6 months–5 years to no more than 300,000 and zero, respectively.

**11.4a:** Reduce the prevalence of blood lead levels exceeding 15 ug/dL and 25 ug/dL among inner-city low-income black children (annual family income less

than \$6,000 in 1984 dollars) to no more than 75,000 and zero, respectively.

**11.5:** Reduce human exposure to criteria air pollutants, as measured by an increase to at least 85 percent in the proportion of people who live in counties that have not exceeded any Environmental Protection Agency standard for air quality in the previous 12 months.

**11.6:** Increase to at least 40 percent the proportion of homes in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.6a:** Increase to at least 50 percent the proportion of homes with smokers and former smokers in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.6b:** Increase to at least 50 percent the proportion of homes with children in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.7:** Reduce human exposure to toxic agents by decreasing the release of hazardous substances from industrial facilities:

65 percent decrease in the substances on the Department of Health and Human Services list of carcinogens.

50 percent reduction in the substances on the Agency for Toxic Substances and Disease Registry (ATSDR) priority list of the most toxic chemicals.

**11.8:** Reduce human exposure to solid waste-related water, air, and soil contamination, as measured by a reduction in average pounds of municipal solid waste produced per person each day to no more than 4.3 pounds before recovery and 3.2 pounds after recovery.

**11.9:** Increase to at least 85 percent the proportion of people who receive a supply of drinking water that meets the

safe drinking water standards established by the Environmental Protection Agency.

*NOTE: Compliance with the Safe Drinking Water Act includes monitoring and reporting as well as providing water that meets the Maximum Contaminant Level (MCL) standards set by the Environmental Protection Agency which define acceptable levels of contaminants. See objective 11.3 for definition of community water systems.*

**11.10:** Reduce potential risks to human health from surface water, as measured by an increase in the proportion of assessed rivers, lakes, and estuaries that support beneficial uses, such as consumable fishing and recreational activities.

	2000 target (percent)
Waters supporting beneficial use	
Rivers supporting:	
Consumable fish	94
Recreational activities	85
Lakes supporting:	
Consumable fish	82
Recreational activities	88
Estuaries supporting:	
Consumable fish	97
Recreational activities	91

*NOTE: Designated beneficial uses, such as aquatic life support, contact recreation (swimming), and water supply, are designated by each State and approved by the Environmental Protection Agency. Support of beneficial use is a proxy measure of risk to human health, as many pollutants causing impaired water uses do not have human health effects (for example, siltation and impaired fish habitat).*

**11.11:** Perform testing for lead-based paint in at least 50 percent of homes built before 1950.

**11.12:** Expand to at least 35 the number of States in which at least 75 percent of local jurisdictions have adopted construction standards and techniques that minimize elevated indoor radon levels in those new building areas locally determined to have elevated radon levels.

*NOTE: Since construction codes are frequently adopted by local jurisdictions rather than States, progress toward this objective also may be tracked using the proportion of cities and counties*

that have adopted such construction standards.

**11.13:** Increase to at least 30 the number of States requiring that prospective buyers be informed of the presence of lead-based paint and radon concentrations in all buildings offered for sale.

**11.14:** Eliminate significant health risks from National Priority List hazardous waste sites, as measured by performance of clean-up at these sites sufficient to eliminate immediate and significant health threats as specified in health assessments completed at all sites.

*NOTE: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 required the Environmental Protection Agency to develop criteria for determining priorities among hazardous waste sites and to develop and maintain a list of these priority sites. The resulting list is called the National Priorities List (NPL).*

**11.15:** Establish curbside recycling programs that serve at least 50 percent of the U.S. population and continue to increase household hazardous waste collection programs.

Recyclable materials and household hazardous waste programs	2000 target (percent)
Percentage of population served by curbside recycling programs	50
Permanent and temporary household hazardous waste collection events	2000 target (number of events)
Permanent	215
Temporary	1,314
Total	1,529

**11.16:** Establish and monitor in at least 35 States plans to define and track sentinel environmental diseases.

*NOTE: Sentinel environmental diseases include lead poisoning, other heavy metal poisoning (e.g., cadmium, arsenic, and mercury), pesticide poisoning, carbon monoxide poisoning, heatstroke, hypothermia, acute chemical poisoning, methemoglobinemia, and respiratory diseases triggered by environmental factors (e.g., asthma).*

**11.17\*:** Reduce to no more than 20 percent the proportion of children aged 6 and younger who are regularly exposed to tobacco smoke at home.

*NOTE: Regular exposure to tobacco smoke at home is defined as the occurrence of tobacco smoking anywhere in the home on more than three days each week.*

Duplicate objective: 3.8

\*Duplicate objective.

# Priority Area 12 Food and Drug Safety

## Background

The development of systems to protect consumers from dangers posed by unapproved food additives, pesticides, food contaminants, and drugs has been a major public health accomplishment. Despite many effective food and drug safety procedures, this country still experiences outbreaks of foodborne diseases and incidents of therapeutic drug-related illness and death. Foodborne disease outbreaks sometimes result from failures in protective systems, but are more often the result of improper food handling. *Salmonella enteritidis*, *Campylobacter jejuni*, *Escherichia coli* O157:H7, and *Listeria monocytogenes* are four of the most common foodborne pathogens in the United States, based on numbers of reported cases and the severity of illness. Children, the very old, and people with immunological deficiencies are at increased risk of infection and death resulting from food contamination.

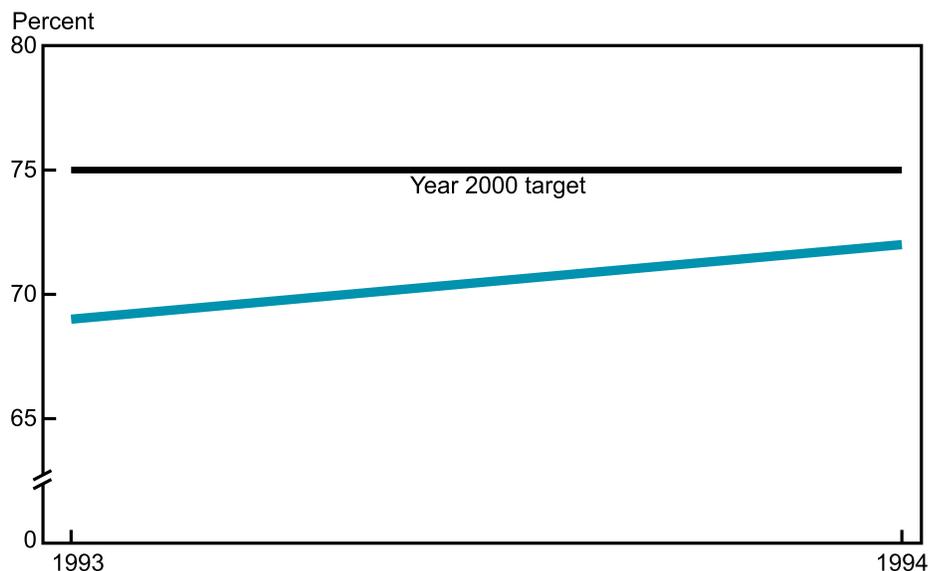
Older adults, who use more prescription and nonprescription medicines than younger people, are at increased risk of suffering adverse drug reactions. The physiological changes associated with increasing age and particular diseases and conditions may alter the effects of drugs. In addition, use of multiple medications increases the risk of an adverse outcome.

## Data Summary

### Highlights

Reported outbreaks of infections due to *Salmonella enteritidis* fell from 77 outbreaks in 1989 to 56 outbreaks in 1995 (objective 12.2). The incidence of infection caused by *Salmonella* species was 16 per 100,000 in 1994 and infections caused by *Listeria monocytogenes* was 0.5 per 100,000 in 1994, indicating that the targets have been met for these components of objective 12.1, despite slight increases from 1994. First time updates for *Campylobacter jejuni* and *Escherichia coli* indicate that the targets have been met for the other components of 12.1.

**Figure 13. Proportion of adverse events reports regarded as serious that are voluntarily sent to the Food and Drug Administration: United States, 1993, 1994, and year 2000 target for objective 12.7**



	1993	1994	Year 2000 target
Serious adverse event reports. . . . .	69	72	75

SOURCE: Food and Drug Administration, MedWatch.

The refrigeration of perishable items has increased slightly, whereas washing cutting boards with soap has stayed about the same (12.3). The reporting of adverse events that are serious (12.7) (see figure 13) and the dispensing of useful information for new prescriptions (12.8) have increased. For dispensers giving useful information, the increase was large.

### Summary of Progress

Two of the eight food and drug safety objectives have met their targets: 12.1 and 12.5. Three objectives (12.2, 12.7, and 12.8) show progress toward their respective targets, one objective shows mixed results (12.3), and two have no update with which to determine progress (12.4 and 12.6).

### Data Issues

### Definitions

The definition of a serious adverse event (objective 12.7) includes events

that are life threatening and require intervention to prevent permanent damage as well as death, hospitalization, disability, and congenital anomaly (1).

For objective 12.8, receipt of useful information for new prescriptions, a prescriber is anyone who is authorized to prescribe, including physicians, nurse practitioners, and physician assistants depending on the State law. Dispensers are persons authorized to dispense prescription medications and include physicians and pharmacists (1).

### Data Source Descriptions

Various surveillance systems of the Centers for Disease Control and Prevention (CDC), including the *Salmonella* Surveillance System, the *Campylobacter* Surveillance System, and the Bacterial Meningitis Surveillance System, were used to monitor progress for objectives 12.1 and 12.2 for data through 1994. The *Salmonella* Surveillance System is a passive laboratory-based system that uses reports from 49 States, the FDA,

and the U.S. Department of Agriculture (USDA). This system measures the incidence of infection from *Salmonella* species (12.1) and the number of outbreaks caused by *Salmonella enteritidis* (12.2). Many factors, including the intensity of surveillance, the severity of the illness, access to medical care, and association with a recognized outbreak, affect whether the infection will be reported. When reporting is incomplete, the incidence of salmonellosis is substantially underreported.

The incidence of foodborne *Listeria monocytogenes*-induced infections was measured until 1994 using the Bacterial Meningitis Surveillance System. This is an active laboratory-based surveillance system conducted in six States; it counts all cases of bacterial meningitis and other invasive bacterial diseases caused by the five most common pathogens causing bacterial meningitis, including *Listeria monocytogenes*. The participating surveillance areas represent several regions throughout the country and a population of 33.5 million, 14 percent of the U.S. population.

The *Campylobacter* Surveillance System is a passive system that receives weekly reports of laboratory isolates of *Campylobacter*. The number of participating States has increased each year. Surveillance mechanisms, including laboratory isolation procedures, vary from State to State.

In 1996, objectives 12.1 and 12.2 will be tracked using data from the Emerging Infections Programs (EIP) implemented by the Centers for Disease Control and Prevention. The Foodborne Diseases Active Surveillance Network (FoodNet) is the primary foodborne diseases component of these programs. FoodNet collects population-based surveillance data on culture-confirmed cases of foodborne illnesses among 13.2 million residents in five EIP sites. Annual incidence rates are calculated using reported cases as the numerator and census estimates for individual catchment areas as the denominator. (2)

MedWatch, which is used to track objective 12.7, is FDA's Medical Products Reporting Program. It is an outreach program for health professionals to educate them on the importance of reporting adverse events, which will allow the FDA to discover more quickly adverse reactions and interactions by increasing reporting (1).

## Comparability of Data Sources

Baseline data for refrigeration and cutting-board practices (12.3) were obtained from the 1988 Diet-Health Knowledge Survey, USDA. Updates use the Food Safety Survey, FDA.

## References

1. Healthy People 2000 midcourse review and 1995 revisions. Department of Health and Human Services. 1995.
2. Centers for Disease Control and Prevention. Foodborne Disease Active Surveillance Network, 1996. MMWR. 1997.

**Table 12. Food and drug safety objective status**

Objective		Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
<b>12.1</b>	<b>Foodborne infections (cases per 100,000)</b>									
	<i>Salmonella</i> species . . . . .	1987	18	16	16	14	15	15	<sup>1</sup> 16	16
	<i>Campylobacter jejuni</i> . . . . .	1987	50	---	---	---	---	---	<sup>1</sup> 25	25
	<i>Escherichia coli</i> O157:H7. . . . .	1987	8	---	---	---	---	---	<sup>1</sup> 3	4
	<i>Listeria monocytogenes</i> . . . . .	1987	0.7	0.77	0.61	0.45	0.44	0.42	<sup>1</sup> 0.5	0.5
<b>12.2</b>	<b><i>Salmonella enteritidis</i> outbreaks</b>	1989	77	68	68	59	63	44	56	25
<b>12.3</b>	<b>Refrigeration and cutting board practices</b>									
	For refrigeration of perishable foods. . . . .	1988	70%	---	---	---	<sup>2</sup> 72%	---	---	75%
	For washing cutting boards with soap . . . . .	1988	66%	---	---	---	<sup>2</sup> 65%	---	---	75%
	For washing utensils with soap . . . . .	1988	55%	---	---	---	---	---	---	75%
<b>12.4</b>	<b>Model food codes (proportion of States and U.S. Territories)</b>									
	Institutional food operations currently using food code 1993 . . . . .	...	---	---	---	---	---	---	---	70%
	Food protection standards									
	States reviewing standards . . . . .	...	---	---	---	---	---	80%	<sup>3</sup> 82%	...
	States adopting standards . . . . .	1994	<sup>a</sup> 2%	...	...	...	...	...	<sup>3</sup> 8	70%
<b>12.5</b>	<b>Linked pharmacy systems<sup>4</sup></b>									
	Computer utilization by pharmacies . . . . .	1993	95%	...	...	...	...	---	98%	75%
<b>12.6</b>	<b>Providers reviewing medication for older patients</b>									
	Percent of clinicians routinely providing service to 81–100% of patients. . . . .	...	---	---	---	---	---	---	---	75%
	Maintenance of current medication list (65 years and over)									
	Nurse practitioners . . . . .	1992	63%	...	...	...	---	---	---	75%
	Obstetricians/gynecologists . . . . .	1992	64%	...	...	...	---	---	---	75%
	Internists . . . . .	1992	84%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	70%	...	...	...	---	---	---	75%
	Review of medications when prescribing (65 years and over)									
	Nurse practitioners . . . . .	1992	55%	...	...	...	---	---	---	75%
	Obstetricians/gynecologists . . . . .	1992	60%	...	...	...	---	---	---	75%
	Internists . . . . .	1992	77%	...	...	...	---	---	---	75%
	Family physicians . . . . .	1992	63%	...	...	...	---	---	---	75%
<b>12.7</b>	<b>Adverse event reports</b>									
	Proportion voluntarily sent to FDA regarded as serious . . . . .	1993	69%	...	...	...	...	72%	---	75%
<b>12.8</b>	<b>Useful information for new prescriptions</b>									
	Verbally and in writing from prescribers or dispensers . . . . .	...	---	---	---	---	---	---	---	75%
	Written information									
	From prescribers . . . . .	1992	14%	...	...	...	---	15%	---	75%
	From dispensers . . . . .	1992	<sup>a</sup> 32%	...	...	...	---	59%	---	75%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.<sup>1</sup>Preliminary 1996 data.<sup>2</sup>1992–93 data.<sup>3</sup>1996 data.<sup>4</sup>A linked system is one with individual computer capability or one that is part of a larger more integrated system such as a chain store computer system.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

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<i>Objective number</i>	<i>Data source</i>
12.1	Salmonella Surveillance System, CDC, NCID. Campylobacter Surveillance System, CDC, NCID. Bacterial Meningitis Surveillance System, CDC, NCID. 1996 data: Foodborne Disease Active Surveillance Network (FoodNet), CDC, USDA, FDA.
12.2	Salmonella Surveillance System, CDC, NCID.
12.3	Baseline: Diet-Health Knowledge Survey, USDA, ASFCS. Updates: Food Safety Survey, FDA.
12.4	Listing of Confirmed Code Adoptions by Local, State, and National Jurisdictions, CFSAN, FDA.
12.5	1993 data: National Association of Retail Druggists. 1995 data: American Society for Automated Pharmacies.
12.6	Primary Care Provider Surveys, OASH, ODPHP.
12.7	FDA, MedWatch.
12.8	FDA.

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# Food and Drug Safety Objectives

**12.1:** Reduce infections caused by key foodborne pathogens to incidences of no more than:

Disease	2000 target (per 100,000)
<i>Salmonella</i> species	16
<i>Campylobacter</i>	25
<i>Escherichia coli</i> O157:H7	4
<i>Listeria monocytogenes</i>	0.5

**12.2:** Reduce outbreaks of infections due to *Salmonella enteritidis* to fewer than 25 outbreaks yearly.

**12.3:** Increase to at least 75 percent the proportion of households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and wash cutting boards and utensils with soap after contact with raw meat and poultry.

**12.4:** Extend to at least 70 percent the proportion of States and territories that have implemented *Food Code 1993* for institutional food operations and to at least 70 percent the proportion that have adopted the new uniform food protection code that sets recommended standards for regulation of all food operations.

**12.5:** Increase to at least 75 percent the proportion of pharmacies and other dispensers of prescription medications that use linked systems to provide alerts to potential adverse drug reactions among medications dispensed by different sources to individual patients.

**12.6:** Increase to at least 75 percent the proportion of primary care providers who routinely review with their patients aged 65 and older all prescribed and over-the-counter medicines taken by their patients each time a new medication is prescribed.

**12.7:** Increase to at least 75 percent the proportion of the total number of adverse event reports voluntarily sent directly to FDA that are regarded as serious.

**12.8:** Increase to at least 75 percent the proportion of people who receive useful information verbally and in writing for new prescriptions from prescribers or dispensers.

# Priority Area 13

## Oral Health

### Background

Oral diseases are among the most common health problems in the United States. Among school-aged children, 45 percent have caries in their permanent teeth (1). Among adults, 94 percent show evidence of past or current tooth decay (2). An average of 21.5 tooth surfaces have been affected by decay among all dentate adults (2). Periodontal diseases are also a chronic problem. Over 90 percent of people 13 years and over show some evidence of periodontal problems (loss of attachment) (3). Moderate periodontal disease was evident in approximately 25 percent of people (3). Expenditures for dental care were \$39 billion in 1992 (4). In 1989 dental visits or problems resulted in 148 hours missed from work per 100 employed people, 117 hours missed from school per 100 school-aged children, and 17 days with restricted activity per 100 people among the total U.S. population (5).

### Data Summary

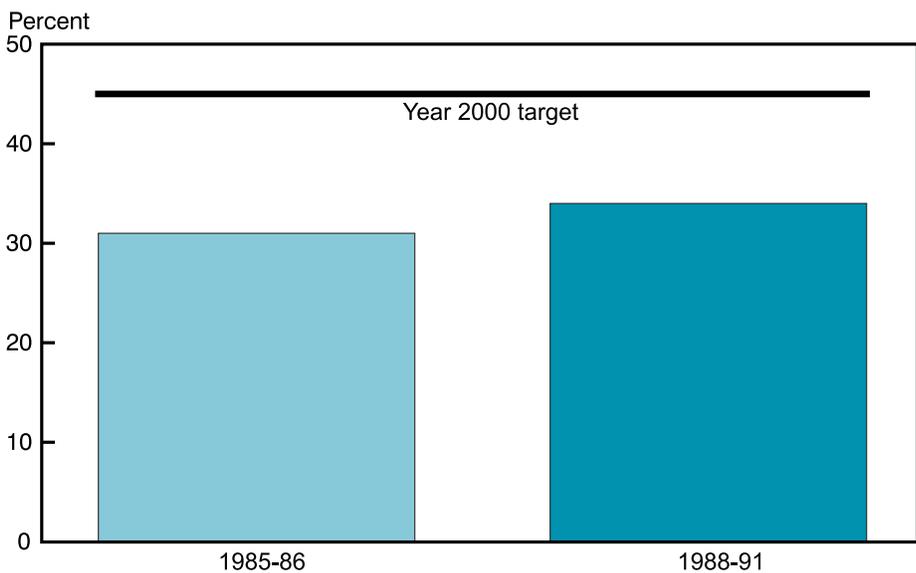
#### Highlights

Oral cancer mortality rates (13.7) continued to decrease in 1995 among the total population of men and women 45–74 years of age and among black men of the same age group. However, the rate for black females has fluctuated since 1991. The prevalence of smokeless tobacco use in the past month (13.17) among males 12–17 years, after increasing between 1993 and 1994, decreased slightly in 1995. This increase is in part explained by changes to the questionnaire and editing procedures that were introduced in the 1994 National Household Survey on Drug Abuse, which provides data for this population group for this objective (see [Data Issues](#)). Smokeless tobacco use among males 18–24 years decreased from 7.8 percent in 1993 to 6.9 percent in 1994.

#### Summary of Progress

Data to assess trends toward the year 2000 targets are available for 13 of

**Figure 14. Proportion of people 35–44 years who have never lost a permanent tooth due to dental caries or periodontal disease: United States, 1985–86, 1988–91, and year 2000 target for objective 13.3**



	1985–86	1988–91	Year 2000 target
People 35–44 years of age . . . .	31	34	45

SOURCES: National Institutes of Health, National Institute of Dental Research, National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–86. Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey III, 1988–91.

the 17 objectives in the oral health priority area. Progress toward targets is shown for 10 objectives (13.1, 13.3, 13.4, 13.6, 13.7, 13.8, 13.9, 13.14, 13.15, and 13.17). Data show trends that are moving away from the target for two objectives (13.5 and 13.12). Trends are mixed for objective 13.2. Data beyond baseline are not available for four objectives in this priority area (13.10, 13.11, 13.13, and 13.16).

#### Data Issues

##### Definition

Objective 13.11 (duplicate 2.12) addresses feeding practices that prevent baby bottle tooth decay. The measure used to establish a baseline for this objective for the total population, caregivers with less than a high school education (13.11a), blacks (13.11c), and Hispanics (13.11d) is for children 6–23 months old. The preventive feeding

practices are either that the child no longer uses a bottle, never used a bottle, or if the child still uses a bottle, that no bottle was given at bedtime (excluding bottles with plain water) during the past 2 weeks.

#### Comparability of Data Sources

Changes in the National Health Interview Survey (NHIS) questions on oral health between 1989 and 1991 affect comparability of information on the proportion of 5-year-old children and adults 35 years of age and over who visited a dentist in the past 12 months (13.12 and 13.14, respectively). In 1986 and 1989, the question on dental visits in the past 12 months followed an introductory statement and questions about dental visits and problems in the past 2 weeks (6,7). The introduction and question on visits in the past 2 weeks were not included in the 1991 and 1993 surveys. These may have differentially affected recall about visits in the past 12

months. A second difference is that the proportion of people who had visited a dentist in the past 12 months was based on a question about the interval since the last dental visit in the 1986 and 1989 surveys. In 1991 and 1993, this measure was obtained from a question about the number of visits to a dentist in the past year. Finally, in 1986 and 1989 oral health data for adults were obtained from a knowledgeable respondent who provided information for all people in the household. In 1991 and 1993, an adult sampled from each family provided information only for himself or herself and not others in the household. A knowledgeable adult provided information for children in all survey years.

The National Household Survey on Drug Abuse is used to measure objective 13.17 regarding smokeless tobacco use among adolescents. An improved questionnaire and editing procedures were introduced with the 1994 survey and affect comparability with previous years, especially for tobacco use among adolescents.

## Proxy Measures

Nationally representative data on topical or systemic fluoride use among people not receiving optimally fluoridated public water are not readily obtainable (13.10). It is difficult to identify a national sample of people who are not served by a fluoridated water system. Survey interview methods are limited because many people cannot accurately state the fluoridation status of their water supply. For this reason, a proxy measure—the proportion of all U.S. residents who use fluoride—is used as the revised baseline and will be used to monitor progress toward achieving this objective. The original baseline showing use of fluoride products among people without fluoridated water was approximated from the 1989 NHIS data and information on water fluoridation patterns in the United States.

## References

1. Kaste LM, Selwitz RH, Oldakowski RJ, et al. Coronal caries in the primary and permanent dentition of children and adolescents 1–17 years of age: United States, 1988–91. *J Dent Res* 75(Spec Iss):631–41. 1996.
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5. Gift HC, Reisine ST, Larach DC. The social impact of dental problems and visits. *Am J Public Health* 82:1663–8. 1992.
6. Jack SS, Bloom B. Use of dental services and dental health, United States, 1986. National Center for Health Statistics. *Vital Health Stat* 10(165). 1988.
7. Bloom B, Gift HC, Jack SS. Dental services and oral health; United States, 1989. National Center for Health Statistics. *Vital Health Stat* 10(183). 1992.

**Table 13. Oral health objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>13.1</b>	<b>Dental caries</b>									
	Children 6–8 years . . . . .	1986–87	54%	---	<sup>1</sup> 54%	---	---	---	---	35%
	Adolescents 15 years . . . . .	1986–87	78%	---	<sup>1</sup> 67%	---	---	---	---	60%
	a. Children 6–8 years whose parents have less than high school education . . . . .	1986–87	70%	---	<sup>1</sup> 62%	---	---	---	---	45%
	b. American Indian/Alaska Native children 6–8 years									
	Primary or permanent teeth . . . . .	...	...	---	88%	---	---	---	---	45%
	Primary teeth . . . . .	1983–84	92%	---	---	---	---	---	---	...
	Permanent teeth . . . . .	1983–84	52%	---	---	---	---	---	---	...
	c. Black children 6–8 years . . . . .	1986–87	56%	---	<sup>1</sup> 48%	---	---	---	---	40%
	d. American Indian/Alaska Native adolescents 15 years . . . . .	1983–84	93%	---	90%	---	---	---	---	70%
<b>13.2</b>	<b>Untreated dental caries</b>									
	Children 6–8 years . . . . .	1986–87	28%	---	<sup>1</sup> 31%	---	---	---	---	20%
	a. Children whose parents have less than a high school education . . . . .	1986–87	43%	---	<sup>1</sup> 46%	---	---	---	---	30%
	b. American Indian/Alaska Native children . . . . .	1983–84	64%	---	72%	---	---	---	---	35%
	c. Black children . . . . .	1986–87	36%	---	<sup>1</sup> 34%	---	---	---	---	25%
	d. Hispanic children . . . . .	1982–84	36%	---	<sup>1,2</sup> 50%	---	---	---	---	25%
	Adolescents 15 years . . . . .	1986–87	24%	---	<sup>1</sup> 22%	---	---	---	---	15%
	e. Adolescents whose parents have less than a high school education . . . . .	1986–87	41%	---	<sup>1</sup> 28%	---	---	---	---	25%
	f. American Indian/Alaska Native adolescents . . . . .	1983–84	84%	---	61%	---	---	---	---	40%
	g. Black adolescents . . . . .	1986–87	38%	---	<sup>1</sup> 28%	---	---	---	---	20%
	h. Hispanic adolescents . . . . .	1982–84	31–47%	---	<sup>1,2</sup> 35%	---	---	---	---	25%
<b>13.3</b>	<b>No tooth loss</b>									
	People 35–44 years . . . . .	1985–86	31%	---	<sup>1</sup> 34%	---	---	---	---	45%
<b>13.4</b>	<b>Complete tooth loss</b>									
	People 65 years and over . . . . .	1986	36%	32%	32%	---	30%	---	---	20%
	a. Low-income people									
	Annual family income less than \$15,000 . . . . .	1986	46%	45%	45%	---	42%	---	---	25%
	Annual family income below poverty level . . . . .	...	---	---	---	---	48%	---	---	25%
	b. American Indians/Alaska Natives . . . . .	1991	42%	...	...	---	22%	---	---	20%
<b>13.5</b>	<b>Gingivitis</b>									
	People 35–44 years . . . . .	1985–86	41%	---	<sup>1</sup> 59%	---	---	---	---	30%
	a. Low-income people (annual family income less than \$12,500) . . . . .	1985–86	50%	---	<sup>1</sup> 60%	---	---	---	---	35%
	b. American Indians/Alaska Natives . . . . .	1983–84	95%	---	96%	---	---	---	---	50%
	c. Hispanics . . . . .	...	---	---	---	---	---	---	---	50%
	Mexican-Americans . . . . .	1982–84	74%	---	<sup>1</sup> 69%	---	---	---	---	...
	Cubans . . . . .	1982–84	79%	---	---	---	---	---	---	...
	Puerto Ricans . . . . .	1982–84	82%	---	---	---	---	---	---	...
<b>13.6</b>	<b>Periodontal diseases</b>									
	People 35–44 years . . . . .	1985–86	25%	---	<sup>1</sup> 21%	---	---	---	---	15%
<b>13.7*</b>	<b>Oral cancer deaths (per 100,000)</b>									
	Males 45–74 years . . . . .	1987	13.6	13.4	12.7	12.2	12.1	11.1	11.0	10.5
	Females 45–74 years . . . . .	1987	4.8	4.6	4.6	4.3	4.2	4.0	3.9	4.1

Table 13. Oral health objective status—Con.

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
	a. Black males 45–74 years . . . . .	1990	29.4	...	26.9	27.3	26.2	25.2	23.4	26.0
	b. Black females 45–74 years . . . . .	1990	6.9	...	6.9	6.0	5.8	5.7	6.4	6.9
<b>13.8</b>	<b>Protective sealants</b>									
	Children 8 years . . . . .	1986–87	11%	---	<sup>1</sup> 21%	---	---	---	---	50%
	Adolescents 14 years . . . . .	1986–87	8%	---	<sup>1</sup> 27%	---	---	---	---	50%
	a. Blacks 8 years . . . . .	1988–91	<sup>a</sup> 9%	...	...	---	---	---	---	50%
	b. Blacks 14 years . . . . .	1988–91	<sup>a</sup> 5%	...	...	---	---	---	---	50%
	c. Hispanics 8 years . . . . .	1988–91	<sup>2,a</sup> 10%	...	...	---	---	---	---	50%
	d. Hispanics 14 years . . . . .	1988–91	<sup>2,a</sup> 9%	...	...	---	---	---	---	50%
<b>13.9</b>	<b>Water fluoridation</b>									
	People served by community water systems . . . . .	1989	61%	---	---	62%	---	---	---	75%
<b>13.10</b>	<b>Topical and systemic fluorides</b>									
	People in nonfluoridated areas who use fluoride . . . . .	1989	50%	---	---	---	---	---	---	85%
	Proportion of people (national) using:									
	Toothpaste containing fluoride . . . . .	...	...	<sup>3</sup> 94%	---	---	---	---	---	...
	Fluoride mouthrinse									
	Children and adolescents 6–17 years . . . . .	...	...	<sup>4</sup> 22.0%	---	---	---	---	---	...
	People 18 years and over . . . . .	...	...	<sup>4</sup> 7.7%	---	---	---	---	---	...
	Fluoride supplements									
	Children and adolescents 2–16 . . . . .	...	...	<sup>4</sup> 10.3%	---	---	---	---	---	...
<b>13.11*</b>	<b>Baby bottle tooth decay</b>									
	Parents and caregivers who use preventive feeding practices . . . . .	1991	55%	...	...	---	---	---	---	75%
	a. Parents and caregivers with less than high school education . . . . .	1991	36%	...	...	---	---	---	---	65%
	b. American Indian/Alaska Native parents and caregivers . . . . .	1985–89	74%	---	---	---	---	---	---	65%
	c. Black parents and caregivers . . . . .	1991	48%	...	...	---	---	---	---	65%
	d. Hispanic parents and caregivers . . . . .	1991	39%	...	...	---	---	---	---	65%
<b>13.12</b>	<b>Oral health screening, referral, and followup</b>									
	Children 5 years who visited the dentist in the past year . . . . .	1986	66%	<sup>4</sup> 60%	63%	---	---	---	---	90%
	a. Blacks 5 years . . . . .	1991	51%	...	...	---	---	---	---	90%
	b. Hispanics 5 years . . . . .	1991	51%	...	...	---	---	---	---	90%
<b>13.13</b>	<b>Oral health care at institutional facilities</b>									
	Nursing facilities . . . . .	1990	Required	---	---	---	---	---	---	...
	Federal prisons . . . . .	...	---	---	---	---	---	---	---	...
	Nonfederal prisons . . . . .	...	---	---	---	---	---	---	---	...
	Juvenile homes . . . . .	...	---	---	---	---	---	---	---	...
	Detention facilities . . . . .	...	---	---	---	---	---	---	---	...
<b>13.14</b>	<b>Regular dental visits</b>									
	People 35 years and over . . . . .	1986	54%	<sup>4</sup> 55%	58%	---	61%	---	---	70%
	a. Edentulous people . . . . .	1986	11%	<sup>4</sup> 13%	13%	---	16%	---	---	50%
	b. People 65 years and over . . . . .	1986	42%	<sup>4</sup> 43%	47%	---	51%	---	---	60%
	c. Blacks 35 years and over . . . . .	1991	43%	...	...	---	46%	---	---	60%
	d. Mexican-Americans 35 years and over . . . . .	1991	38%	...	...	---	45%	---	---	60%
	e. Puerto Ricans 35 years and over . . . . .	1991	51%	...	...	---	37%	---	---	60%

**Table 13. Oral health objective status—Con.**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>13.15</b>	<b>Oral health care for infants with cleft lip and/or palate</b>									
	Number of States with systems for recording and referring infants with cleft lip and/or palates									
	Systems to identify and refer . . . . .	1989	11	---	---	---	23	---	---	40
	Systems to identify infants . . . . .	1989	25	---	---	---	34	---	---	40
	Systems to refer for care . . . . .	1989	20	---	---	---	31	---	---	40
	Systems to identify, refer, and follow up for care . . . . .	1993	<sup>a</sup> 16	...	...	...	...	---	---	40
<b>13.16*</b>	<b>Protective equipment in sporting and recreation events</b> . . . . .	...	---	---	---	---	---	---	---	100%
	National Collegiate Athletic Association									
	Football . . . . .	1988	Required	---	---	---	---	---	---	...
	Hockey . . . . .	1988	Required	---	---	---	---	---	---	...
	Lacrosse . . . . .	1988	Required	---	---	---	---	---	---	...
	High school football . . . . .	1988	Required	---	---	---	---	---	---	...
	Amateur boxing . . . . .	1988	Required	---	---	---	---	---	---	...
	Amateur ice hockey . . . . .	1988	Required	---	---	---	---	---	---	...
	Use of protective headgear and mouth guards among children who play sports									
	Baseball/softball									
	Headgear . . . . .	...	---	---	35%	---	---	---	---	...
	Mouth guard . . . . .	...	---	---	7%	---	---	---	---	...
	Football									
	Headgear . . . . .	...	---	---	72%	---	---	---	---	...
	Mouth guard . . . . .	...	---	---	72%	---	---	---	---	...
	Soccer									
	Headgear . . . . .	...	---	---	4%	---	---	---	---	...
	Mouth guard . . . . .	...	---	---	7%	---	---	---	---	...
<b>13.17*</b>	<b>Smokeless tobacco use</b>									
	Males 12–17 years <sup>5</sup> . . . . .	1988	6.6%	---	5.3%	4.8%	3.9%	5.1%	4.9%	4%
	Males 18–24 years . . . . .	1987	8.9%	---	9.9%	8.2%	7.8%	6.9%	---	4%
	a. American Indians/Alaska Natives 18–24 years . . . . .	1986–87	18–64%	---	<sup>6</sup> ---	<sup>6</sup> ---	<sup>6</sup> ---	<sup>6</sup> ---	---	10%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>1988–91 data.

<sup>2</sup>Data are for Mexican-Americans.

<sup>3</sup>1986 data.

<sup>4</sup>1989 data.

<sup>5</sup>Data are from the NHSDA showing smokeless tobacco use during the past month.

<sup>6</sup>Relative standard error is greater than 30%, which results in unreliable estimates.

NOTE: Data include revisions and, therefore, may differ from those previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
13.1, 13.1c	Baseline: National Survey of Dental Caries in U.S. School Children, 1986–87, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.1a	Baseline: North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.1b,d	Baseline: Survey of Oral Health, 1983–84, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.
13.2, 13.2c,g	Baseline: National Survey of Dental Caries in U.S. School Children, 1986–87, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.2a,e	Baseline: North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.2b,f	Baseline: Survey of Oral Health, 1983–84, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.
13.2d,h	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.3	Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–86, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.4, 13.4a	National Health Interview Survey, CDC, NCHS.
13.4b	Baseline: Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service. Update: National Health Interview Survey, CDC, NCHS.
13.5, 13.5a	Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–86, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.5b	Baseline: Survey of Oral Health, 1983–84, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.
13.5c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.6	Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–86, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.7*, 13.7a,b	National Vital Statistics System, CDC, NCHS.
13.8	Baseline: National Survey of Dental Caries in U.S. School Children, 1986–87, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.
13.9	Annual Fluoridation Census, CDC, NCPS.
13.10	National Health Interview Survey, CDC, NCHS.
13.11*, 13.11a,c,d	National Health Interview Survey, CDC, NCHS.
13.11b	1990 Baby Bottle Tooth Decay 5-Year Evaluation Report, Indian Health Service, Dental Services Branch.
13.12	National Health Interview Survey, CDC, NCHS.
13.13	Baseline: Health Care Financing Administration.
13.14	National Health Interview Survey, CDC, NCHS.
13.15	State Public Health Dentists Survey, Illinois State Health Department.
13.16*	CDC, NCPS; NIH, NIDR. 1991 Data: National Health Interview Survey, CDC, NCHS.
13.17*	For males 18–24 years of age, National Health Interview Survey, CDC, NCHS; For males 12–17 years of age, National Household Survey on Drug Abuse, SAMHSA, OAS.
13.17a	Baseline: National Medical Expenditure Survey of American Indians/Alaska Natives, PHS, NCHSR. Updates: National Health Interview Survey, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Oral Health Objectives

**13.1:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 35 percent among children aged 6–8 and no more than 60 percent among adolescents aged 15.

**13.1a:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 45 percent among children aged 6–8 whose parents have less than a high school education.

**13.1b:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 45 percent among American Indian and Alaska Native children aged 6–8.

**13.1c:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 40 percent among black children aged 6–8.

**13.1d:** Reduce dental caries (cavities) so that the proportion of adolescents with one or more caries (in permanent teeth) is no more than 70 percent among American Indian and Alaska Native adolescents aged 15.

**13.2:** Reduce untreated dental caries so that the proportion of children with untreated caries (in permanent or primary teeth) is no more than 20 percent among children aged 6–8 and no more than 15 percent among adolescents aged 15.

**13.2a:** Reduce untreated dental caries so that the proportion of lower socioeconomic status children aged 6–8 (those whose parents have less than a high school education) with untreated dental caries (in permanent or primary teeth) is no more than 30 percent.

**13.2b:** Reduce untreated dental caries so that the proportion of American Indian and Alaska Native children aged 6–8 with untreated caries (in permanent or primary teeth) is no more than 35 percent.

**13.2c:** Reduce untreated dental caries so that the proportion of black children aged 6–8 with untreated caries (in permanent or primary teeth) is no more than 25 percent.

**13.2d:** Reduce untreated dental caries so that the proportion of Hispanic children aged 6–8 with untreated caries (in permanent or primary teeth) is no more than 25 percent.

**13.2e:** Reduce untreated dental caries so that the proportion of lower socioeconomic status adolescents aged 15 (those whose parents have less than a high school education) with untreated dental caries (in permanent or primary teeth) is no more than 25 percent.

**13.2f:** Reduce untreated dental caries so that the proportion of American Indian and Alaska Native adolescents aged 15 with untreated caries (in permanent or primary teeth) is no more than 40 percent.

**13.2g:** Reduce untreated dental caries so that the proportion of black adolescents aged 15 with untreated caries (in permanent or primary teeth) is no more than 20 percent.

**13.2h:** Reduce untreated dental caries so that the proportion of Hispanic adolescents aged 15 with untreated caries (in permanent or primary teeth) is no more than 25 percent.

**13.3:** Increase to at least 45 percent the proportion of people aged 35–44 who have never lost a permanent tooth due to dental caries or periodontal diseases.

*NOTE: Never lost a permanent tooth is having 28 natural teeth exclusive of third molars.*

**13.4:** Reduce to no more than 20 percent the proportion of people aged 65 and older who have lost all of their natural teeth.

**13.4a:** Reduce to no more than 25 percent the proportion of low-income people (annual family income less than \$15,000) aged 65 and older who have lost all of their natural teeth.

**13.4b:** Reduce to no more than 20 percent the proportion of American Indians and Alaska

Natives aged 65 and older who have lost all of their natural teeth.

**13.5:** Reduce the prevalence of gingivitis among people aged 35–44 to no more than 30 percent.

**13.5a:** Reduce the prevalence of gingivitis among low-income people (annual family income less than \$12,500) aged 35–44 to no more than 35 percent.

**13.5b:** Reduce the prevalence of gingivitis among American Indians and Alaska Natives aged 35–44 to no more than 50 percent.

**13.5c:** Reduce the prevalence of gingivitis among Hispanics aged 35–44 to no more than 50 percent.

**13.6:** Reduce destructive periodontal diseases to a prevalence of no more than 15 percent among people aged 35–44.

*NOTE: Destructive periodontal disease is one or more sites with 4 millimeters or greater loss of tooth attachment.*

**13.7\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 10.5 per 100,000 men aged 45–74 and 4.1 per 100,000 women aged 45–74.

Duplicate objectives: 3.17 and 16.17

**13.7a\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 26.0 per 100,000 among black males aged 45–74.

Duplicate objectives: 3.17a and 16.17a

**13.7b\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 6.9 per 100,000 among black females aged 45–74.

Duplicate objectives: 3.17b and 16.17b

**13.8:** Increase to at least 50 percent the proportion of children who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

*NOTE: Progress toward this objective will be monitored based on prevalence of sealants in children at ages 8 and 14, when the majority of first and second molars, respectively, are erupted.*

**13.8a:** Increase to at least 50 percent the proportion of

black children aged 8 who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

**13.8b:** Increase to at least 50 percent the proportion of black children aged 14 who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

**13.8c:** Increase to at least 50 percent the proportion of Hispanic children aged 8 who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

**13.8d:** Increase to at least 50 percent the proportion of Hispanic children aged 14 who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

**13.9:** Increase to at least 75 percent the proportion of people served by community water systems providing optimal levels of fluoride.

*NOTE: Optimal levels of fluoride are determined by the mean maximum daily air temperature over a 5-year period and range between 0.7 and 1.2 parts of fluoride per 1 million parts of water (ppm).*

**13.10:** Increase use of professionally or self-administered topical or systemic (dietary) fluorides to at least 85 percent of people not receiving optimally fluoridated public water.

**13.11\*:** Increase to at least 75 percent the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12

**13.11a\*:** Increase to at least 65 percent the proportion of parents and caregivers with less than a high school education who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12a

**13.11b\*:** Increase to at least 65 percent the proportion of American Indian and Alaska Native parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12b

**13.11c\*:** Increase to at least 65 percent the proportion of black parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12c

**13.11d\*:** Increase to at least 65 percent the proportion of Hispanic parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12d

**13.12:** Increase to at least 90 percent the proportion of all children entering school programs for the first time who have received an oral health screening, referral, and followup for necessary diagnostic, preventive, and treatment services.

*NOTE: School programs include Head Start, prekindergarten, kindergarten, and first grade.*

**13.12a:** Increase to at least 90 percent the proportion of all black children aged 5 who have received an oral health screening, referral, and followup for necessary diagnostic, preventive, and treatment services.

**13.12b:** Increase to at least 90 percent the proportion of Hispanic children aged 5 who have received an oral health screening, referral, and followup for necessary diagnostic, preventive, and treatment services.

**13.13:** Extend to all long-term institutional facilities the requirement that oral examinations and services be provided no later than 90 days after entry into these facilities.

*NOTE: Long-term institutional facilities include nursing homes, prisons, juvenile homes, and detention facilities.*

**13.14:** Increase to at least 70 percent the proportion of people aged 35 and older using the oral health care system during each year.

**13.14a:** Increase to at least 50 percent the proportion of edentulous people using the oral health care system during each year.

**13.14b:** Increase to at least 60 percent the proportion of people aged 65 and older using the oral health care system during each year.

**13.14c:** Increase to at least 60 percent the proportion of blacks aged 35 and older using the oral health care system during each year.

**13.14d:** Increase to at least 60 percent the proportion of Mexican-Americans aged 35 and older using the oral health care system during each year.

**13.14e:** Increase to at least 60 percent the proportion of Puerto Ricans aged 35 and older using the oral health care system during each year.

**13.15:** Increase to at least 40 the number of States that have an effective system for recording and referring infants with cleft lips and/or palates to craniofacial anomaly teams.

Identification and referral of infants with clefts	2000 target (number of States)
States with system to identify clefts	40
States with system to refer for care	40
States with system to follow-up	40
States with system to identify and refer	40

**13.16\*:** Extend requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risk of injury.

Duplicate objective: 9.19

**13.17\*:** Reduce smokeless tobacco use by males aged 12–24 to a prevalence of no more than 4 percent.

*NOTE: For males aged 12–17, a smokeless tobacco user is someone who has used snuff or chewing tobacco in the preceding month. For males aged 18–24, a smokeless tobacco user is someone who has used either snuff or chewing tobacco at least 20 times and who currently uses snuff or chewing tobacco.*

Duplicate objective: 3.9

**13.17a\*:** Reduce smokeless tobacco use by American Indian and Alaska Native youth to a prevalence of no more than 10 percent.

Duplicate objective: 3.9a

\*Duplicate objective.

# Priority Area 14 Maternal and Infant Health

## Background

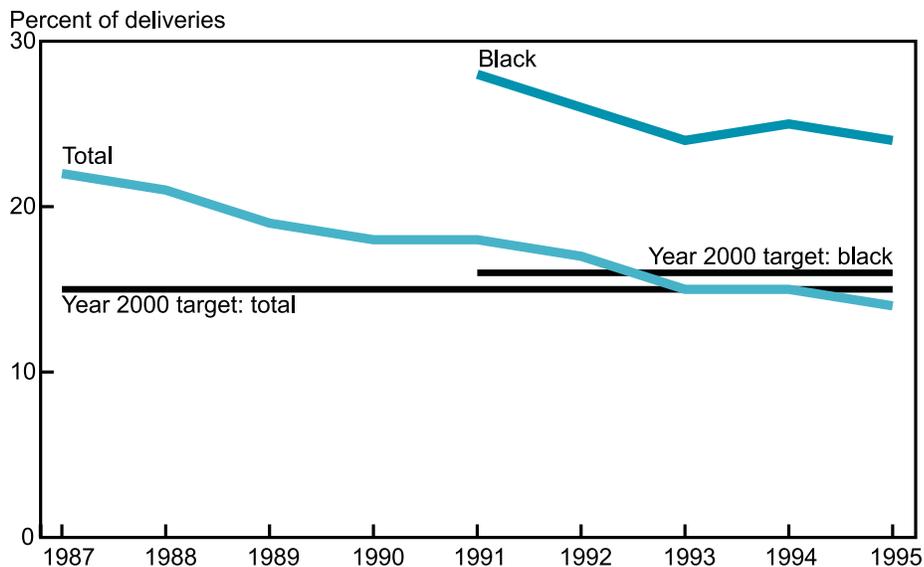
Improving the health of mothers and infants is a national priority. Nearly 30,000 infants died before their first birthday in 1995 (1). Although the infant mortality rate in the United States continues to decline and has reached an all-time low, the decline has been more rapid for the white population than for the black population. The mortality rate for black infants remains more than twice the rate for white infants (2). In the past decade some important measures of increased risk of infant death, such as incidence of low/very low birthweight, have actually increased. Despite the importance of early prenatal care in protecting against low birthweight and infant mortality, nearly one of every five pregnant women receives no care in the first trimester of pregnancy (3). An expectant mother with no prenatal care is three times as likely to have a low-birthweight baby. Further reductions in infant mortality and morbidity will require a focus on strategies to modify the behaviors and lifestyles that affect birth outcomes.

## Data Summary

### Highlights

Infant mortality (objective 14.1) declined substantially in 1994 and 1995. The decline in infant mortality was due to decreases in both neonatal mortality (14.1d) and postneonatal mortality (14.1g). In the past several years there have been improvements in some of the important infant health risk factors such as breastfeeding (14.9), receipt of early prenatal care (14.11), smoking during pregnancy (14.10), and screening for fetal abnormalities (14.13). The 1995 figure for breastfeeding in the early postpartum period (14.9) equaled the record rate reported in 1984. The 1996 rate is slightly lower than the 1995 record high. Maternal mortality (14.3) also decreased in 1995, although the maternal mortality rate remains substantially above the 1987 baseline level. Fetal mortality (14.2) declined in 1994 and then remained level in 1995.

**Figure 15. Incidence of severe complications of pregnancy: United States, 1987–95, and year 2000 targets for objective 14.7**



	1987	1988	1989	1990	1991	1992	1993	1994	1995	Year 2000 target
Total population . . .	22	21	19	18	18	17	15	15	14	15
Black . . . . .	---	---	---	---	28	26	24	25	24	16

--- Data not available.

NOTE: Severe complications of pregnancy are measured using hospitalizations due to pregnancy-related complications.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

The rate of hospitalizations for severe complications of pregnancy (14.7) has dropped dramatically and in 1995 surpassed the year 2000 target. However, the decline for black women (14.7a) has been more modest. Although the rate of all cesarean section (C-section) (14.8) and primary C-section (14.8a) births continues to decline, at the present rate, they are unlikely to reach the year 2000 targets. In contrast, the repeat C-section rate (14.8b) has been dropping sharply and in 1995 surpassed the year 2000 target. The national year 2000 target for C-sections has already been reached in a number of States (4).

Less encouraging has been the steep rise in the rate of fetal alcohol syndrome (14.4), especially among the black population (14.4a), the increase in spina bifida and other neural tube diseases (14.17), and the gradual rise in the percent of low and very low birthweight (14.5).

### Summary of Progress

Of the 17 Maternal and Infant Health objectives for the total population, 8 are moving toward the year 2000 targets (objectives 14.1, 14.2, 14.6, 14.8, 14.9, 14.11, 14.13, and 14.15); 4 are moving away from the targets (14.3, 14.4, 14.5, and 14.17). The year 2000 target for severe complications of pregnancy (14.7) has been surpassed and some newborn screening tests (14.15) have also exceeded the target. Progress for objective 14.10 showed mixed results. Two objectives (14.14 and 14.16) have no baseline data. Data beyond baseline to update progress for the remaining objective (14.12) are not yet available.

## Data Issues

### Definitions

In 1989 the National Center for Health Statistics (NCHS) changed the method for tabulating race for live births, assigning to the infant the race of mother rather than using the previous, more complicated algorithm for race of child. This change affects the natality data by race in this chapter. In addition, because live births comprise the denominator of infant mortality (including neonatal and postneonatal), maternal mortality, and fetal death rates, these rates are also affected. These changes are described in greater detail in other NCHS publications (5,6). Quantitatively, the change in the basis for tabulating live births by race results in more births to the white population and fewer births to the black population and other races. Because of changes in the denominators, infant mortality rates (14.1), fetal death rates (14.2), and maternal mortality rates (14.3) under the new classification tend to be lower for white infants and higher for infants of other races than they would be when computed by the previous method. For characteristics of birth such as percent low birthweight (14.5) and percent receiving early care (14.11), the racial disparities tend to be larger when data are tabulated by race of mother rather than race of child.

The special target populations for racial subgroups in this priority area are being monitored with the “new” data by race of mother. Data prior to 1989 were recomputed by race of mother to allow comparable trend comparisons.

Studies indicate that infant mortality for minorities other than blacks from the mortality files have been seriously underestimated (7). Therefore, infant mortality (objective 14.1) for American Indians and Alaska Natives (AI/AN) and for Puerto Ricans is being monitored through data from the Linked Infant Birth and Infant Death Files, which categorizes deaths by the race of mother as reported on the birth certificate. The data from the linked files lag somewhat behind the regular vital statistics files. The most recent year of linked file data is 1991.

Data for objective 14.7 (severe complications of pregnancy) come from the National Hospital Discharge Survey (NHDS) maintained by NCHS. Data for the survey are obtained from approximately 480 hospitals throughout

the United States. Data on race are missing from roughly 17 percent of the discharge records in the survey. This omission may yield rates that underestimate hospitalizations for the black population subobjective (14.7a).

Data for objective 14.12 (preconception counseling by clinicians) are from the Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on inquiry (from PCPS) about preconception counseling represent the proportion of providers who routinely asked 81–100 percent of their patients about family planning. The data on counseling refer to the proportion of providers who routinely counseled 81–100 percent of their patients who needed the services.

### Data Source Description

Data for 14.9 and 14.9a–c are from the Ross Mothers’ Survey (RMS) conducted by Abbot Laboratories. The RMS is an ongoing survey that is periodically mailed to mothers at the time their baby is 6 months old. The data are derived from questionnaires mailed to a probability sample of new mothers selected from a list of names that represents approximately 80 percent of all national births. Mothers are asked to recall the type of milk their baby was fed in the hospital and in each month from 1 through 6. Mothers are considered to be breastfeeding if they used either human milk exclusively or human milk in combination with a supplemental bottled formula or cow’s milk.

Prior to 1996, the data were shown for the early postpartum period (defined as breastfeeding in hospital) and for an average of the period 5–6 months. Beginning with 1996 data, the RMS changed the definition of the later period to breastfeeding at 6 months. Therefore, all the RMS data shown in the table for the later period have been recomputed to the 6-month period. The result is either no change or very small decreases in many of the data points for 14.9 and 14.9a–c for the later period.

Beginning with data year 1997, the methodology for the RMS will change. Instead of questionnaires being sent only to mothers with 6-month-old babies,

they will be sent to a larger sample of mothers with babies 1–12 months. Therefore, although the overall sample will be approximately double the pre-1997 size, the number in the sample for each month (including 6 months) will be considerably smaller than previous years. This change will affect the stability of the 6-month figures used to monitor the objective.

Breast-feeding among AI/AN mothers (14.9d) is tracked by the Pediatric Nutrition Surveillance System (PedNSS). The number of participating States and Indian tribes has varied from year to year. The fluctuations in State and tribal participation could affect the comparability of these data.

### Comparability of Data Sources

Data on fetal alcohol syndrome (FAS) (objective 14.4) and spina bifida and other neural tube defects (14.17) are by year of birth. Cases received after the end of data year are assigned to year of the birth. Therefore, data for previous years include revisions and may differ from those previously published.

The increasing trends for FAS and spina bifida should be interpreted with caution. These data are obtained from the Birth Defects Monitoring Program (BDMP) from hospitals participating in the Commission on Professional and Hospital Activities (CPHA). The number of participating hospitals has declined substantially in recent years, resulting in a decrease in the proportion of U.S. births covered by the BDMP. In 1981, 24 percent of all births (19 percent of black births) were covered compared with only 5 percent (and only 2 percent of black births) in 1993. As a result, the relatively small number of births in the BDMP may not be representative of all U.S. births. The increasing trend in FAS may also be a function of improved identification and reporting, rather than an actual increase in incidence of the condition. There was not a sufficient number of CPHA hospitals in 1994 to compute a reliable rate for either objective 14.4 or 14.17. CDC is currently working with States to improve the surveillance of birth defects and hopes to have new tracking systems available in the near future.

The decreasing number of births in the BDMP has also made tracking FAS for AI/AN problematic (14.4a). In 1993 the BDMP contained only about 500 births (or 1 percent of AI/AN births) to AI/AN mothers compared with

13 percent in 1981. As a result, FAS data beyond 1990 for AI/AN are considered unreliable and are not shown in the table.

The data on substance use during pregnancy (14.10) come from multiple sources. The 1985 baseline data on smoking are from the National Health Interview Survey and the 1988 baseline data on alcohol, cocaine, and marijuana come from the National Maternal and Infant Health Survey. The 1992 update on tobacco comes from the information listed on the certificate of live birth and the 1993 updates on all substances are from the National Pregnancy and Health Survey. Although the estimates from these sources are relatively consistent, differences in methodology between the data systems suggest that changes over time be interpreted with caution.

## Proxy Data

Objective 14.13 calls for the percent of women enrolled in prenatal care who are offered screening and counseling on prenatal detection of fetal abnormalities. The data used to track the objective are the number of pregnant women (per 100 live births) who were screened for  $\alpha$ -fetoprotein levels for the purpose of detecting babies with fetal Down syndrome (8).

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**Table 14. Maternal and infant health objective status**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>14.1</b>	<b>Infant mortality (per 1,000 live births)</b>	1987	10.1	9.2	8.9	8.5	8.4	8.0	7.6	7
	a. Blacks	1987	18.8	18.0	17.6	16.8	16.5	15.8	15.1	11
	b. American Indians/Alaska Natives	1984	13.4	13.1	11.3	---	---	---	---	8.5
	c. Puerto Ricans <sup>1</sup>	1984	12.9	9.9	9.7	---	---	---	---	8
	d. Neonatal mortality	1987	6.5	5.7	5.6	5.4	5.3	5.1	4.9	4.5
	e. Neonatal mortality among blacks	1987	12.3	11.6	11.2	10.8	10.7	10.2	9.8	7
	f. Neonatal mortality among Puerto Ricans <sup>1</sup>	1984	8.6	6.9	6.1	---	---	---	---	5.2
	g. Postneonatal mortality	1987	3.6	3.4	3.4	3.1	3.1	2.9	2.7	2.5
	h. Postneonatal mortality among blacks	1987	6.4	6.4	6.3	6.0	5.8	5.6	5.3	4
	i. Postneonatal mortality among American Indians/Alaska Natives	1984	7.0	7.0	5.8	---	---	---	---	4
	j. Postneonatal mortality among Puerto Ricans <sup>1</sup>	1984	4.3	3.0	3.5	---	---	---	---	2.8
<b>14.2</b>	<b>Fetal deaths (per 1,000 live births plus fetal deaths)</b>	1987	7.6	7.5	7.3	7.4	7.1	7.0	7.0	5
	a. Blacks	1987	13.1	13.3	12.8	13.3	12.8	12.5	12.7	7.5
<b>14.3</b>	<b>Maternal mortality (per 100,000 live births)</b>	1987	6.6	8.2	7.9	7.8	7.5	8.3	7.1	3.3
	a. Blacks	1987	14.9	22.4	18.3	20.8	20.5	18.5	22.1	5
<b>14.4</b>	<b>Fetal alcohol syndrome (per 1,000 live births)</b>	1987	0.22	0.40	0.37	0.52	0.67	---	---	0.12
	a. American Indians/Alaska Natives	1987	4.0	5.2	---	---	---	---	---	2.0
	b. Blacks	1987	0.8	1.4	1.9	2.3	5.4	---	---	0.4
<b>14.5</b>	<b>Low birthweight</b>	1987	6.9%	7.0%	7.1%	7.1%	7.2%	7.3%	7.3%	5%
	Very low birthweight	1987	1.2%	1.3%	1.3%	1.3%	1.3%	1.3%	1.4%	1%
	a. Low-birthweight blacks	1987	13.0%	13.5%	13.6%	13.3%	13.3%	13.2%	13.1%	9%
	b. Very low-birthweight blacks	1987	2.8%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	2%
	c. Low-birthweight Puerto Ricans <sup>1</sup>	1990	9.0%	...	9.4%	9.2%	9.2%	9.1%	9.4%	6%
	d. Very low-birthweight Puerto Ricans <sup>1</sup>	1990	1.6%	...	1.7%	1.7%	1.7%	1.6%	1.8%	1%
<b>14.6</b>	<b>Recommended weight gain during pregnancy</b>	1980	<sup>2,a</sup> 68%	<sup>3</sup> 75%	---	---	---	---	---	85%
<b>14.7</b>	<b>Severe complications of pregnancy (per 100 deliveries)</b>	1987	22	18	18	17	15	15	14	15
	a. Blacks	1991	28	...	...	26	24	25	24	16
<b>14.8</b>	<b>Cesarean delivery (per 100 deliveries)</b>	1987	24.4	23.5	23.5	23.6	22.8	22.0	20.8	15
	a. Primary (first time) cesarean delivery	1987	17.4	16.8	17.1	16.8	16.3	15.8	15.5	12
	b. Repeat cesarean deliveries (among women with previous cesarean delivery)	1987	91.2	79.6	75.8	74.9	74.6	70.3	64.5	65
<b>14.9*</b>	<b>Breastfeeding</b>									
	During early postpartum period <sup>4</sup>	1988	54%	52%	53%	54%	56%	<sup>5</sup> 60%	<sup>6</sup> 59%	75%
	a. Low-income mothers	1988	32%	31%	33%	35%	38%	<sup>5</sup> 42%	<sup>6</sup> 42%	75%
	b. Black mothers	1988	25%	23%	26%	28%	31%	<sup>5</sup> 37%	<sup>6</sup> 37%	75%
	c. Hispanic mothers	1988	51%	48%	52%	52%	56%	<sup>5</sup> 61%	<sup>6</sup> 61%	75%
	d. American Indian/Alaska Native mothers	1988	47%	47%	46%	53%	51%	44%	52%	75%
	At age 5–6 months	1988	21%	19%	20%	20%	21%	<sup>5</sup> 22%	<sup>6</sup> 22%	50%
	a. Low-income mothers	1988	9%	8%	9%	9%	10%	<sup>5</sup> 11%	<sup>6</sup> 12%	50%
	b. Black mothers	1988	8%	7%	7%	9%	9%	<sup>5</sup> 11%	<sup>6</sup> 11%	50%
	c. Hispanic mothers	1988	16%	14%	16%	17%	18%	<sup>5</sup> 20%	<sup>6</sup> 20%	50%
	d. American Indian/Alaska Native mothers	1988	28%	27%	22%	24%	28%	24%	24%	50%

**Table 14. Maternal and infant health objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>14.10 Abstinence from alcohol, tobacco, and drug use during pregnancy</b>									
Tobacco . . . . .	1985	75%	79%	80%	83%	80%	85%	86%	90%
Alcohol . . . . .	1988	79%	---	---	---	81%	---	---	95%
Cocaine . . . . .	1988	99%	---	---	---	99%	---	---	100%
Marijuana . . . . .	1988	98%	---	---	---	97%	---	---	100%
<b>14.11 Prenatal care in the first trimester (percent of live births)</b>	1987	76.0%	75.8%	76.2%	77.7%	78.9%	80.2%	81.3%	90%
a. Blacks . . . . .	1987	60.8%	60.6%	61.9%	63.9%	66.0%	68.3%	70.4%	90%
b. American Indians/Alaska Natives . . . . .	1987	57.6%	57.9%	59.9%	62.1%	63.4%	65.2%	66.7%	90%
c. Hispanics <sup>1</sup> . . . . .	1987	61.0%	60.2%	61.0%	64.2%	66.6%	68.9%	70.8%	90%
<b>14.12* Age-appropriate preconception counseling by clinicians</b>	...	---	---	---	---	---	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients									
Inquiry about family planning (females, childbearing age)									
Pediatricians . . . . .	1992	18%	...	...	...	---	---	---	60%
Nurse practitioners . . . . .	1992	53%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	48%	...	...	...	---	---	---	60%
Internists . . . . .	1992	24%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	28%	...	...	...	---	---	---	60%
Counseling about family planning									
Pediatricians . . . . .	1992	36%	...	...	...	---	---	---	60%
Nurse practitioners . . . . .	1992	53%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	65%	...	...	...	---	---	---	60%
Internists . . . . .	1992	26%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	36%	...	...	...	---	---	---	60%
<b>14.13 Screening for fetal abnormalities (percent of live births)</b>	1988	29%	---	---	51%	---	---	---	90%
<b>14.14 Pregnant women and infants receiving risk-appropriate care</b>	...	---	---	---	---	---	---	---	90%
<b>14.15 Newborn screening and treatment</b>									
Screened by State-sponsored programs for genetic disorders and other conditions . . . . .	...	---	---	---	---	---	---	---	95%
Testing positive for disease and receiving appropriate treatment . . . . .	...	---	---	---	---	---	---	---	90%
Sickle cell screening . . . . .	1987	<sup>7</sup> 33%	<sup>8</sup> 89%	---	---	---	---	---	90%
Black infants . . . . .	1987	<sup>7</sup> 57%	<sup>9</sup> 77%	---	---	---	---	---	90%
Galactosemia screening (38 States) . . . . .	1987	70%	97%	---	---	---	---	---	90%
Newborns diagnosed positive for sickle cell anemia receiving treatment . . . . .	...	...	95%	---	---	---	---	---	...
Newborns diagnosed positive for galactosemia receiving treatment . . . . .	...	...	100%	---	---	---	---	---	...
<b>14.16 Babies receiving primary care</b>	...	---	---	---	---	---	---	---	90%
<b>14.17 Spina bifida and other neural tube defects (per 10,000 live births)</b>	1990	6	...	7	6	7	---	---	3

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.<sup>1</sup>Excludes data from States lacking a Hispanic-origin item on their birth or death certificate or for which Hispanic origin data were not of sufficient quality. See [appendix](#).<sup>2</sup>1980 data for married females who had a full-term live birth and prenatal care.<sup>3</sup>1988 data.<sup>4</sup>Breastfed in hospital.<sup>5</sup>1995 data.

<sup>6</sup>1996 data.

<sup>7</sup>Based on 20 States reporting.

<sup>8</sup>Based on 43 States reporting.

<sup>9</sup>Based on 9 States reporting.

NOTE: Data may include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
14.1, 14.1a-j	National Vital Statistics System, CDC, NCHS.
14.2, 14.2a	National Vital Statistics System, CDC, NCHS.
14.3, 14.3a	National Vital Statistics System, CDC, NCHS.
14.4, 14.4a,b	Births Defects Monitoring Program, CDC, NCEH.
14.5, 14.5a-d	National Vital Statistics System, CDC, NCHS.
14.6	Baseline: National Natality Survey, CDC, NCHS. Updates: National Maternal and Infant Health Survey, CDC, NCHS.
14.7	National Hospital Discharge Survey, CDC, NCHS.
14.8, 14.8a,b	National Hospital Discharge Survey, CDC, NCHS.
14.9*, 14.9a-c	Ross Mothers' Survey, Abbot Laboratories.
14.9d	Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
14.10	Baseline: National Maternal and Infant Health Survey, CDC, NCHS. 1992 and 1994-95 Updates: National Vital Statistics System, CDC, NCHS. 1993 Updates: National Pregnancy and Health Survey, NIH, NIDA.
14.11, 14.11a-c	National Vital Statistics System, CDC, NCHS.
14.12*	Primary Care Provider Surveys, OASH, ODPHP.
14.13	College of American Pathologists, Foundation for Blood Research.
14.15	Council of Regional Networks for Genetic Services.
14.17	Birth Defects Monitoring Program, CDC, NCEH.

\*Duplicate objective. See full text of objective following this table.

# Maternal and Infant Health Objectives

**14.1:** Reduce the infant mortality rate to no more than 7 per 1,000 live births.

*NOTE: Infant mortality is deaths of infants under 1 year; neonatal mortality is deaths of infants under 28 days; and postneonatal mortality is deaths of infants aged 28 days up to 1 year.*

**14.1a:** Reduce the infant mortality rate among blacks to no more than 11 per 1,000 live births.

**14.1b:** Reduce the infant mortality rate among American Indians and Alaska Natives to no more than 8.5 per 1,000 live births.

**14.1c:** Reduce the infant mortality rate among Puerto Ricans to no more than 8 per 1,000 live births.

**14.1d:** Reduce the neonatal mortality rate to no more than 4.5 per 1,000 live births.

**14.1e:** Reduce the neonatal mortality rate among blacks to no more than 7 per 1,000 live births.

**14.1f:** Reduce the neonatal mortality rate among Puerto Ricans to no more than 5.2 per 1,000 live births.

**14.1g:** Reduce the postneonatal mortality rate to no more than 2.5 per 1,000 live births.

**14.1h:** Reduce the postneonatal mortality rate among blacks to no more than 4 per 1,000 live births.

**14.1i:** Reduce the postneonatal mortality rate among American Indians and Alaska Natives to no more than 4 per 1,000 live births.

**14.1j:** Reduce the postneonatal mortality rate among Puerto Ricans to no more than 2.8 per 1,000 live births.

**14.2:** Reduce the fetal death rate (20 or more weeks of gestation) to no more than 5 per 1,000 live births plus fetal deaths.

**14.2a:** Reduce the fetal death rate (20 or more weeks of gestation) among blacks to no more than 7.5 per 1,000 live births plus fetal deaths.

**14.3:** Reduce the maternal mortality rate to no more than 3.3 per 100,000 live births.

**14.3a:** Reduce the maternal mortality rate among black women to no more than 5 per 100,000 live births.

**14.4:** Reduce the incidence of fetal alcohol syndrome to no more than 0.12 per 1,000 live births.

**14.4a:** Reduce the incidence of fetal alcohol syndrome among American Indians and Alaska Natives to no more than 2 per 1,000 live births.

**14.4b:** Reduce the incidence of fetal alcohol syndrome among blacks to no more than 0.4 per 1,000 live births.

**14.5:** Reduce low birthweight to an incidence of no more than 5 percent of live births and very low birthweight to no more than 1 percent of live births.

*NOTE: Low birthweight is weight at birth of less than 2,500 grams; very low birthweight is weight at birth of less than 1,500 grams.*

**14.5a:** Reduce low birthweight among blacks to an incidence of no more than 9 percent of live births.

**14.5b:** Reduce very low birthweight among blacks to no more than 2 percent of live births.

**14.5c:** Reduce low birthweight among Puerto Ricans to an incidence of no more than 6 percent of live births.

**14.5d:** Reduce very low birthweight among Puerto Ricans to no more than 1 percent of live births.

**14.6:** Increase to at least 85 percent the proportion of mothers who achieve the minimum recommended weight gain during their pregnancies.

*NOTE: Recommended weight gain is pregnancy weight gain recommended in the 1990 National Academy of Science's report, Nutrition During Pregnancy.*

**14.7:** Reduce severe complications of pregnancy to no more than 15 per 100 deliveries.

*NOTE: Severe complications of pregnancy is measured using hospitalizations due to pregnancy-related complications.*

**14.7a:** Reduce severe complications of pregnancy among blacks to no more than 16 per 100 deliveries.

**14.8:** Reduce the cesarean delivery rate to no more than 15 per 100 deliveries.

**14.8a:** Reduce the primary (first time) cesarean delivery rate to no more than 12 per 100 deliveries.

**14.8b:** Reduce the repeat cesarean delivery rate to no more than 65 per 100 deliveries among women who had a previous cesarean delivery.

**14.9\*:** Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11

**14.9a\*:** Increase to at least 75 percent the proportion of low-income mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11a

**14.9b\*:** Increase to at least 75 percent the proportion of black mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11b

**14.9c\*:** Increase to at least 75 percent the proportion of Hispanic mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11c

**14.9d\*:** Increase to at least 75 percent the proportion of American Indian and Alaska Native mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11d

**14.10:** Increase abstinence from tobacco use by pregnant women to at least 90 percent, increase abstinence from alcohol by pregnant women to at least 90 percent and increase abstinence from cocaine and marijuana to 100 percent.

**14.11:** Increase to at least 90 percent the proportion of all pregnant women who receive prenatal care in the first trimester of pregnancy.

**14.11a:** Increase to at least 90 percent the proportion of pregnant black women who receive prenatal care in the first trimester of pregnancy.

**14.11b:** Increase to at least 90 percent the proportion of pregnant American Indian and Alaska Native women who receive prenatal care in the first trimester of pregnancy.

**14.11c:** Increase to at least 90 percent the proportion of pregnant Hispanic women who receive prenatal care in the first trimester of pregnancy.

**14.12\*:** Increase to at least 60 percent the proportion of primary care providers who provide age-appropriate preconception care and counseling.

Duplicate objective: 5.10

**14.13:** Increase to at least 90 percent the proportion of women enrolled in prenatal care who are offered screening and counseling on prenatal detection of fetal abnormalities.

**14.14:** Increase to at least 90 percent the proportion of pregnant women and infants who receive risk-appropriate care.

**14.15:** Increase to at least 95 percent the proportion of newborns screened by State-sponsored programs for genetic disorders and other disabling conditions and to 90 percent the proportion of newborns testing positive for disease who receive appropriate treatment.

**14.16:** Increase to at least 90 percent the proportion of babies aged 18 months and younger who receive recommended primary care services at the appropriate intervals.

**14.17:** Reduce the incidence of spina bifida and other neural tube defects to 3 per 10,000 live births.

\*Duplicate objective.

# Priority Area 15 Heart Disease and Stroke

## Background

Over the past 20 years, the death rate for cardiovascular disease has declined dramatically: 46 percent for all cardiovascular disease, 51 percent for coronary heart disease, and 60 percent for stroke. Even so, cardiovascular diseases, primarily coronary heart disease and stroke, kill nearly as many Americans as all other diseases combined (1). Cardiovascular disease is also among the leading causes of disability (2). The major modifiable risk factors for cardiovascular disease are high blood pressure, high blood cholesterol, cigarette smoking, obesity, and physical inactivity. High blood pressure is one of the most important modifiable risk factors for cardiovascular disease (3).

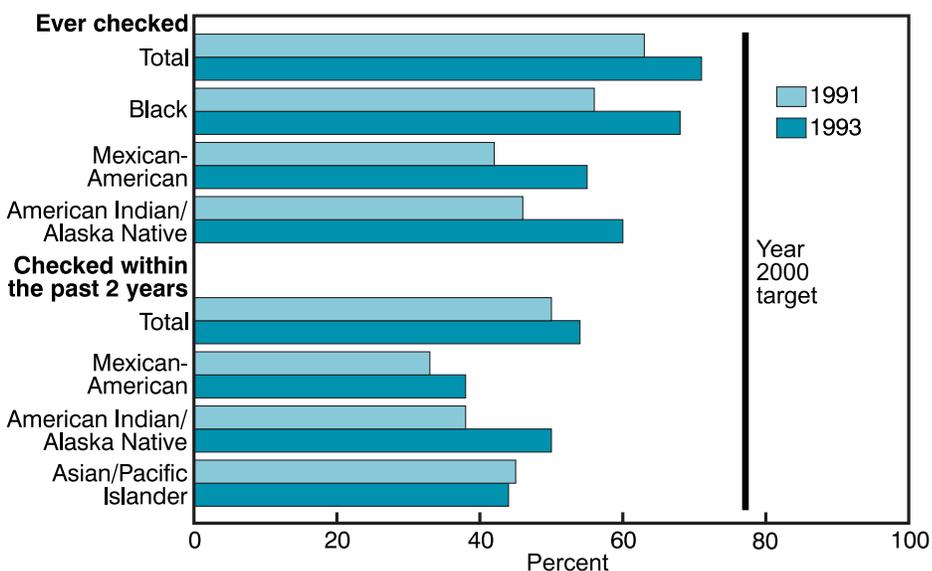
According to the National Health and Nutrition Examination Survey (NHANES), the average blood pressure levels have dropped and the prevalence of high blood pressure has declined from 30 percent of adults (1976–80) to 24 percent (1988–91) over the past decade (4). In addition, the mean serum cholesterol level fell from 213 mg/dL in 1976–80 to 203 mg/dL in 1988–94 and the percentage of the population with high blood cholesterol fell from 27 percent to below the year 2000 target at 19 percent.

## Data Summary

### Highlights

A number of objectives in the heart disease and stroke priority area have shown progress. Mortality due to coronary heart disease (15.1) and stroke (15.2) declined from the 1987 baseline through 1995 in the population as a whole. However, mortality for both causes of death among black people is higher and the decline in mortality over this period was not as substantial as that of the total population. The proportion of people who know their blood pressure values (15.13) has increased. The mean serum cholesterol level has decreased (15.6) and there has been an increase in the proportion of the

**Figure 16. Proportion of adults who have had their blood cholesterol checked: United States, 1991, 1993, and year 2000 target for objective 15.14**



	1991	1993	Year 2000 target
<b>Ever checked:</b>			
Total . . . . .	63	71	75
Black . . . . .	56	68	75
Mexican-American . . . . .	42	55	75
American Indian/Alaska Native . . . . .	46	60	75
<b>Checked within past 2 years:</b>			
Total . . . . .	50	54	75
Mexican-American . . . . .	33	38	75
American Indian/Alaska Native . . . . .	38	50	75
Asian/Pacific Islander . . . . .	45	44	75

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

population who have their cholesterol measured (15.14). The objectives for high blood cholesterol prevalence (15.7) and awareness of a high blood cholesterol condition (15.8) have met the year 2000 targets. Two objectives not showing progress are the rate of end-stage renal disease (15.3) and the proportion of overweight people (15.10), both of which are increasing.

### Summary of Progress

Of the 17 objectives in the heart disease and stroke priority area, 2 objectives (15.7 and 15.8) have met the targets, and data for 12 objectives show improvements toward meeting the year 2000 targets (15.1, 15.2, 15.4–15.6, 15.9, 15.11–15.15, and 15.17). Two

objectives are moving away from the year 2000 targets (15.3 and 15.10) and one objective (15.16) shows mixed results.

### Data Issues

### Definitions

Objective 15.4 addresses the proportion of people with hypertension whose blood pressure is under control. High blood pressure is defined as blood pressure greater than or equal to 140 mm Hg systolic and/or 90 mm Hg diastolic and/or taking antihypertensive medication. The estimates used to track this objective define control as using antihypertensive medication only and do

not include other nonpharmacologic treatments such as weight loss, low sodium diets, and restriction of alcohol.

High blood cholesterol (15.7) is defined as serum cholesterol levels of 240 mg/dL (5).

Overweight (15.10) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see [Note](#) with the text of objective 15.10). BMI cutoff points for adults are 27.8 kilograms per meter squared for males and 27.3 kilograms per meter squared for females. Current international research appears to indicate that a lower BMI of 25 kilograms per meter squared may be more clinically relevant to increased risk of cardiovascular disease (6,7).

The intent of objective 15.11 (light-to-moderate physical activity) is to generate calorie-burning activity from a health standpoint by emphasizing the importance of regular physical activity that can be sustained throughout the lifespan. The sum of all physical activities performed at least 30 minutes per occasion 5 or more or 7 or more times a week regardless of the intensity has been defined as measuring this objective.

Beginning in 1992 the definition of current smoker (15.12) was modified to specifically include persons who smoked only “some days.” Prior to 1992, a current smoker was defined by the questions “Have you ever smoked 100 cigarettes in your lifetime?” and “Do you smoke now?” In 1992, data were collected and analyzed for one-half the respondents using these smoking questions and for the other one-half of respondents using a revised smoking question: “Do you smoke everyday, some days, or not at all?” The 1992 estimate combines data collected using both sets of questions. Updates after 1992 are based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

Objective 15.15 seeks to increase the proportion of primary care providers who provide appropriate therapy for high blood cholesterol. This objective is being tracked by the median blood cholesterol level at initiation of diet and

drug therapy. In 1990, 54 percent of physicians reported that they initiate diet therapy and 60 percent initiate drug therapy at these median levels.

### Comparability of Data Sources

Objective 15.5, to increase the proportion of people with hypertension who are taking action to control their blood pressure, is measured by self-reported data from the National Health Interview Survey (NHIS). In this survey, people with high blood pressure are defined as those who report that they have been told they have high blood pressure on two or more occasions by a doctor or health professional. These data are limited to the proportion of people with hypertension who are aware of their condition. For the 1985 baseline, NHIS respondents reporting high blood pressure were asked if they were told to take blood pressure medication, diet to lose weight, cut down on salt, or exercise. In 1991 and 1993, the only actions asked about to reduce high blood pressure were taking medication or following doctor’s advice to diet.

Overweight (15.10) is being tracked with two data sources. The primary data source is the NHANES, which provided baseline data for most of the overweight objectives and the 1988–94 updates; these data are derived from measured height and weight. The second data source is the NHIS. This survey provides interim estimates shown in an earlier publication (8), updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities. NHIS estimates are based on self-reported heights and weights and are not comparable with the actual measured data from NHANES. Trends from the NHIS self-report measures, like those from NHANES, show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

Objective 15.11 (light-to-moderate physical activity) is being tracked with the NHIS. Because the questionnaire changed in 1991, databases were made as similar as possible before calculating estimates. This process involved limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific activities listed to those asked in all 3 years.

Objective 15.13 addresses blood pressure screening and whether people know if their blood pressure is normal or high. Baseline data and 1990 updates show the proportion of people 18 years of age and over who had their blood pressure measured within the preceding 2 years by a health professional or other trained observer and who were given the diastolic and systolic values of the measure. The 1991 and 1993 updates are the proportion of people 18 years and over who had their blood pressure checked and can state whether their blood pressure was high, low, borderline, or normal.

The 1985 and 1992 data for objective 15.16 are from the National Survey of Worksite Health Promotion Activities, which were telephone surveys of nongovernment worksites. Worksites were sampled, because different worksites within the same company could have different sets of health promotion activities. Both active (for example, classes) and passive (for example, brochures) methods were counted as worksite health promotion activities. The 1995 update comes from the CDC-sponsored Worksite Benchmark Survey, which used a methodology very similar to the 1992 survey, but did not include passive methods of health promotion (9,10).

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**Table 15. Heart disease and stroke objective status**

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
<b>15.1*</b>	<b>Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	1987	135	122	118	114	114	110	108	100
	a. Blacks . . . . .	1987	168	158	156	151	154	147	147	115
<b>15.2*</b>	<b>Stroke deaths (age adjusted per 100,000)</b> . . . . .	1987	30.4	27.7	26.8	26.2	26.5	26.5	26.7	20.0
	a. Blacks . . . . .	1987	52.5	48.4	46.8	45.0	45.0	45.4	45.0	27.0
<b>15.3</b>	<b>End-stage renal disease (per 100,000)</b> . . . . .	1987	14.4	18.4	20.5	22.0	---	---	---	13.0
	a. Blacks . . . . .	1987	34.0	43.0	48.6	52.5	---	---	---	30.0
<b>15.4*</b>	<b>Controlled high blood pressure</b>									
	People with high blood pressure <sup>1</sup> . . . . .	1976–80	11%	---	<sup>2</sup> 29%	---	---	---	---	50%
	a. Males with high blood pressure <sup>1</sup> . . . . .	1976–80	6%	---	<sup>2</sup> 22%	---	---	---	---	40%
	b. Mexican-Americans with high blood pressure <sup>1</sup> . . . . .	1988–91	14%	...	...	---	---	---	---	50%
	c. Females 70 years and over with high blood pressure . . . . .	1988–91	19%	...	...	---	---	---	---	50%
<b>15.5</b>	<b>Taking action to control blood pressure</b>									
	People with high blood pressure 18 years and over									
	Using medication, diet, low salt, and exercise . . . . .	1985	79%	80%	---	---	---	---	---	90%
	Using medication and diet . . . . .	...	---	---	71%	---	72%	71%	---	...
	a. White hypertensive males 18–34 years . . . . .	1985	51%	54%	34%	---	38%	30%	---	80%
	b. Black hypertensive males 18–34 years . . . . .	1985	63%	56%	40%	---	64%	50%	---	80%
<b>15.6*</b>	<b>Mean serum cholesterol level (mg/dL)</b>									
	People 20–74 years <sup>3</sup> . . . . .	1976–80	213	---	---	---	---	<sup>4</sup> 203	---	200
	Males 20–74 years <sup>3</sup> . . . . .	1976–80	211	---	---	---	---	<sup>4</sup> 202	---	200
	Females 20–74 years <sup>3</sup> . . . . .	1976–80	215	---	---	---	---	<sup>4</sup> 204	---	200
<b>15.7*</b>	<b>High blood cholesterol prevalence</b>									
	People 20–74 years <sup>3</sup> . . . . .	1976–80	27%	---	---	---	---	<sup>4</sup> 19%	---	20%
	Males 20–74 years <sup>3</sup> . . . . .	1976–80	25%	---	---	---	---	<sup>4</sup> 18%	---	20%
	Females 20–74 years <sup>3</sup> . . . . .	1976–80	29%	---	---	---	---	<sup>4</sup> 20%	---	20%
<b>15.8</b>	<b>Awareness of high blood cholesterol condition</b>									
	Adults with high blood cholesterol . . . . .	1988	30%	44%	---	---	---	---	60%	60%
<b>15.9*</b>	<b>Dietary fat intake among people 2 years and over</b>									
	National Health and Nutrition Examination Survey									
	Average percent of calories from total fat <sup>5</sup> . . . . .	1976–80	<sup>6</sup> 36%	---	---	---	---	<sup>4</sup> 34%	---	30%
	Average percent of calories from saturated fat <sup>5</sup> . . . . .	1976–80	<sup>6</sup> 13%	---	---	---	---	<sup>4</sup> 12%	---	10%
	Percent who met goal for fat <sup>7</sup> . . . . .	1988–94	<sup>a</sup> 27%	...	...	...	...	...	---	50%
	Percent who met goal for saturated fat <sup>7</sup> . . . . .	1988–94	<sup>a</sup> 29%	...	...	...	...	...	---	50%
	Continuing Survey of Food Intakes by Individuals									
	Average percent of calories from total fat <sup>5</sup> . . . . .	1989–91	34%	...	...	---	---	33%	33%	30%
	Average percent of calories from saturated fat <sup>5</sup> . . . . .	1989–91	12%	...	...	---	---	11%	11%	10%
	Percent who met goal for fat . . . . .	1989–91	<sup>7</sup> 22%	...	...	---	---	<sup>8</sup> 32%	<sup>8</sup> 33%	50%
	Percent who met goal for saturated fat . . . . .	1989–91	<sup>7</sup> 21%	...	...	---	---	<sup>8</sup> 34%	<sup>8</sup> 35%	50%
<b>15.10*</b>	<b>Overweight prevalence</b>									
	(Based on measured height and weight unless otherwise indicated)									
	Adults 20–74 years . . . . .	1976–80	26%	---	---	---	---	<sup>9,10</sup> 35%	---	20%
	Males . . . . .	1976–80	24%	---	---	---	---	<sup>9,11</sup> 34%	---	20%
	Females . . . . .	1976–80	27%	---	---	---	---	<sup>9,12</sup> 37%	---	20%

Table 15. Heart disease and stroke objective status—Con.

Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
Adolescents 12–19 years . . . . .	1976–80	15%	---	---	---	---	<sup>13</sup> 24%	---	15%
a. Low-income females 20–74 years . . . . .	1976–80	37%	...	<sup>2</sup> 47%	---	---	---	---	25%
b. Black females 20–74 years . . . . .	1976–80	44%	...	---	---	---	<sup>9,14</sup> 52%	---	30%
c. Hispanic females 20–74 years . . . . .	...	---	---	---	---	---	---	---	25%
Hispanic females 20 years and over (self-reported) <sup>15</sup> . . . . .	...	---	33%	32%	32%	33%	---	---	...
Mexican-American females 20–74 years . . . . .	1982–84	39%	---	...	---	---	<sup>9</sup> 50%	---	...
Cuban females 20–74 years . . . . .	1982–84	34%	---	---	---	---	---	---	...
Puerto Rican females 20–74 years . . . . .	1982–84	37%	---	---	---	---	---	---	...
d. American Indians/Alaska Natives 20 years and over . . . . .	1984–88	29–75%	---	<sup>15</sup> 40%	<sup>15</sup> 36%	<sup>15</sup> 48%	---	---	30%
e. People with disabilities 20 years and over (self-reported) <sup>15</sup> . . . . .	1985	36%	---	38%	37%	38%	---	---	25%
f. Females with high blood pressure 20–74 years . . . . .	1976–80	50%	---	---	---	---	---	---	41%
g. Males with high blood pressure 20–74 years . . . . .	1976–80	39%	---	---	---	---	---	---	35%
h. Mexican-American males 20–74 years . . . . .	1982–84	30%	---	---	---	---	<sup>9,16</sup> 37%	---	25%
<b>15.11* Moderate physical activity</b>									
People 6 years and over . . . . .	...	---	---	---	---	---	---	---	30%
People 18–74 years									
5 or more times per week . . . . .	1985	22%	23%	24%	---	---	---	---	30%
7 or more times per week . . . . .	1985	16%	16%	17%	---	---	---	---	30%
a. Hispanics 18 years and over									
5 or more times per week . . . . .	1991	20%	...	...	---	---	---	---	25%
<b>15.12* Cigarette smoking prevalence</b>									
People 18 years and over . . . . .	1987	29%	25%	26%	27%	25%	26%	---	15%
Males . . . . .	1987	31%	28%	28%	29%	28%	28%	---	15%
Females . . . . .	1987	27%	23%	23%	25%	22%	23%	---	15%
a. People with high school education or less 20 years and over . . . . .	1987	34%	31%	31%	32%	30%	31%	---	20%
b. Blue-collar workers 18 years and over . . . . .	1987	41%	36%	36%	36%	34%	39%	---	20%
c. Military personnel . . . . .	1988	42%	---	---	35%	---	---	---	20%
d. Blacks 18 years and over . . . . .	1987	33%	26%	29%	28%	26%	27%	---	18%
e. Hispanics 18 years and over . . . . .	1987	24%	23%	20%	21%	20%	20%	---	15%
f. American Indians/Alaska natives 18 years and over . . . . .	1979–87	<sup>17</sup> 42–70%	38%	31%	40%	39%	40%	---	20%
g. Southeast Asian males . . . . .	1984–88	55%	<sup>18</sup> 35%	---	---	---	---	---	20%
h. Females of reproductive age (18–44 years) . . . . .	1987	29%	26%	27%	28%	26%	27%	---	12%
i. Pregnant females . . . . .	1985	25%	19%	20%	---	20%	---	---	10%
j. Females who use oral contraceptives . . . . .	1983	36%	<sup>19</sup> 26%	---	---	---	---	---	10%
<b>15.13 Knowledge of blood pressure values</b>									
People given blood pressure values . . . . .	1985	61%	76%	---	---	---	---	---	90%
People who can state blood pressure is high, low, or normal . . . . .	...	---	...	84%	---	85%	84%	---	...
a. Mexican-American males . . . . .	1991	69%	...	...	---	68%	68%	---	90%
<b>15.14 Blood cholesterol checked in past 5 years</b>									
People 18 years and over . . . . .	1993	66%	...	...	...	...	---	---	75%
Ever checked . . . . .	1988	59%	65%	63%	---	71%	---	75%	...
Within past 2 years . . . . .	1988	52%	---	50%	---	54%	---	---	...

**Table 15. Heart disease and stroke objective status—Con.**

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
	Ever checked									
	a. Blacks	1991	56%	...	...	---	68%	---	---	75%
	b. Mexican-Americans	1991	42%	...	...	---	55%	---	---	75%
	c. American Indians/Alaska Natives	1991	46%	...	...	---	60%	---	---	75%
	Within past 2 years									
	d. Mexican-Americans	1991	33%	...	...	---	38%	---	---	75%
	e. American Indians/Alaska Natives	1991	38%	...	...	---	50%	---	---	75%
	f. Asians/Pacific Islanders	1991	45%	...	...	---	44%	---	---	75%
<b>15.15</b>	<b>Primary care providers who provide appropriate therapy for high blood cholesterol</b>	...	---	---	---	---	---	---	---	75%
	Median cholesterol level when diet therapy is initiated (mg/dL)	1986	240–259	200–219	---	---	---	---	200–219	...
	Median cholesterol level when drug therapy is initiated (mg/dL)	1986	300–319	240–259	---	---	---	---	240–259	...
<b>15.16</b>	<b>Worksite blood pressure/cholesterol education programs</b>									
	High blood pressure and/or cholesterol activity	1992	35.0%	...	...	...	---	---	---	50%
	High blood pressure activity	1985	16.5%	---	---	<sup>20</sup> 29%	---	---	---	...
	Nutrition education activity	1985	16.8%	---	---	31%	---	---	---	...
	Blood pressure screening	...	---	---	---	32%	---	---	16%	...
<b>15.17</b>	<b>Laboratory accuracy in cholesterol measurement</b>	1985	53%	<sup>21</sup> 84%	---	---	---	---	---	90%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>People 18–74 years.

<sup>2</sup>1988–91 data.

<sup>3</sup>Crude rates.

<sup>4</sup>1988–94 data.

<sup>5</sup>One-day dietary data.

<sup>6</sup>For persons up to 74 years.

<sup>7</sup>Three-day dietary data.

<sup>8</sup>Two-day dietary data.

<sup>9</sup>1988–94 data, 20 years and over.

<sup>10</sup>1988–91 data show 34% for 20–74 years, 33% for 20 years and over.

<sup>11</sup>1988–91 data show 32% for 20–74 years, 31% for 20 years and over.

<sup>12</sup>1988–91 data show 36% for 20–74 years, 35% for 20 years and over.

<sup>13</sup>1988–94 data. 1988–91 data show 21% for ages 12–19 years.

<sup>14</sup>1988–91 data show 49% for 20–74 years, 49% for 20 years and over.

<sup>15</sup>Estimate derived from self-reported height and weight.

<sup>16</sup>1988–91 data show 36% for 20–74 years and 39% for 20 years and over.

<sup>17</sup>Estimates for different tribes.

<sup>18</sup>Vietnamese males only.

<sup>19</sup>1988 data.

<sup>20</sup>Includes classes, individual counseling, and resource materials.

<sup>21</sup>1987 data.

NOTE: Data may include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
15.1*, 15.1a	National Vital Statistics System, CDC, NCHS.
15.2*, 15.2a	National Vital Statistics System, CDC, NCHS.
15.3, 15.3a	End Stage Renal Disease Medicare Reimbursement Data, HCFA, Bureau of Data Management and Strategy.
15.4*, 15.4a–c	National Health and Nutrition Examination Survey, CDC, NCHS.
15.5, 15.5a,b	National Health Interview Survey, CDC, NCHS.
15.6*	National Health and Nutrition Examination Survey, CDC, NCHS.
15.7*	National Health and Nutrition Examination Survey, CDC, NCHS.
15.8	Baseline: Health and Diet Survey, FDA. Update: Cholesterol Awareness Survey, NIH, NHLBI.
15.9*	1976–80 and 1988–94 data: National Health and Nutrition Examination Survey, CDC, NCHS. 1989–91 Baselines and 1994–95 updates: Continuing Survey of Food Intakes by Individuals, USDA.
15.10*, 15.10a,b,f,g 15.10c,h	National Health and Nutrition Examination Survey, CDC, NCHS. Data for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican-Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican-Americans: National Health and Nutrition Examination Survey, CDC, NCHS.
15.10d	Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
15.10e	National Health Interview Survey, CDC, NCHS.
15.11*, 15.11a	National Health Interview Survey, CDC, NCHS.
15.12*, 15.12a,b,d,e,h	National Health Interview Survey, CDC, NCHS.
15.12c	Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DoD, OASD.
15.12f	Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.
15.12g	Baseline: Local surveys.
15.12i	Baseline and 1991 update: National Health Interview Survey, CDC, NCHS. 1993 update: National Health and Pregnancy Survey, NIH, NIDA.
15.12j	Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.
15.13	National Health Interview Survey, CDC, NCHS.
15.14	Baseline: Health and Diet Survey, FDA. 1991 and 1993 updates: National Health Interview Survey, CDC, NCHS. 1995 update: Cholesterol Awareness Survey, NIH, NHLBI.
15.15	Cholesterol Awareness Physicians Survey, NIH, NHLBI.
15.16	1985 and 1992 data: National Survey of Worksite Health Promotion Activities, OASH, ODPHP. 1995 update: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.
15.17	Comprehensive Chemistry Survey of Laboratories Using Enzymatic Methods, College of American Pathologists.

\*Duplicate objective. See full text of objective following this table.

# Heart Disease and Stroke Objectives

**15.1\***: Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 2.1, and 3.1

**15.1a\***: Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 2.1a, and 3.1a

**15.2\***: Reduce stroke deaths to no more than 20 per 100,000 people.

Duplicate objectives: 2.22 and 3.18

**15.2a\***: Reduce stroke deaths among blacks to no more than 27 per 100,000.

Duplicate objectives: 2.22a and 3.18a

**15.3**: Reverse the increase in end-stage renal disease (requiring maintenance dialysis or transplantation) to attain an incidence of no more than 13 per 100,000.

**15.3a**: Reverse the increase in end-stage renal disease (requiring maintenance dialysis or transplantation) among black persons to attain an incidence of no more than 30 per 100,000.

**15.4\***: Increase to at least 50 percent the proportion of people with high blood pressure whose blood pressure is under control.

*NOTE: People with high blood pressure have blood pressure equal to or greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or take antihypertensive medication. Blood pressure control is defined as maintaining a blood pressure less than 140 mm Hg systolic and 90 mm Hg diastolic. Control of hypertension does not include nonpharmacologic treatment.*

Duplicate objective: 2.26

**15.4a\***: Increase to at least 40 percent the proportion of men with high blood pressure whose blood pressure is under control.

Duplicate objective: 2.26a

**15.4b\***: Increase to at least

50 percent the proportion of Mexican-Americans with high blood pressure whose blood pressure is under control.

Duplicate objective: 2.26b

**15.4c\***: Increase to at least 50 percent the proportion of women 70 years and older with high blood pressure whose blood pressure is under control.

Duplicate objective: 2.26c

**15.5**: Increase to at least 90 percent the proportion of people with high blood pressure who are taking action to help control their blood pressure.

*NOTE: People with high blood pressure are defined in the National Health Interview Survey as those who are told on two or more occasions by a physician or other health professional that they had blood pressure equal to or greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or taking hypertensive medication. Actions to control blood pressure include taking medication, dieting to lose weight, cutting down on salt, and exercising.*

**15.5a**: Increase to at least 80 percent the proportion of white hypertensive men aged 18–34 who are taking action to help control their blood pressure.

**15.5b**: Increase to at least 80 percent the proportion of black hypertensive men aged 18–34 who are taking action to help control their blood pressure.

**15.6\***: Reduce the mean serum cholesterol level among adults to no more than 200 mg/dL.

Duplicate objective: 2.27

**15.7\***: Reduce the prevalence of blood cholesterol levels of 240 mg/dL or greater to no more than 20 percent among adults.

Duplicate objective: 2.25

**15.8**: Increase to at least 60 percent the proportion of adults with high blood cholesterol who are aware of their condition and are taking action to reduce their blood cholesterol to recommended levels.

*NOTE: “High blood cholesterol” means a level that requires diet and, if necessary, drug treatment. Actions to control high blood cholesterol include*

*keeping medical appointments, making recommended dietary changes (e.g., reducing saturated fat, total fat, and dietary cholesterol), and, if necessary, taking prescribed medication.*

**15.9\***: Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the Dietary Guidelines’ average daily goal of no more than 30 percent of calories from fat, and increase to at least 50 percent the proportion of people aged 2 and older who meet the average daily goal of less than 10 percent of calories from saturated fat.

Duplicate objectives: 2.5 and 16.7

**15.10\***: Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the age- and gender-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II), corrected for sample variation. BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 1.2, 2.3, and 17.12

**15.10a\***: Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 2.3a, and 17.12a

**15.10b\***: Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 2.3b, and 17.12b

**15.10c\***: Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 2.3c, and 17.12c

**15.10d\***: Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 2.3d, and 17.12d

**15.10e\***: Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 2.3e, and 17.12e

**15.10f\***: Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 1.2f, 2.3f, and 17.12f

**15.10g\***: Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 1.2g, 2.3g, and 17.12g

**15.10h\***: Reduce overweight to a prevalence of no more than 25 percent among Mexican-American men.

Duplicate objectives: 1.2h, 2.3h, and 17.12h

**15.11\***: Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light-to-moderate physical activity for at least 30 minutes per day.

*NOTE: Light-to-moderate physical activity requires sustained, rhythmic muscular movements and is at least equivalent to sustained walking. Maximum heart rate equals roughly 220*

*beats per minute minus age. Examples may include walking, swimming, cycling, dancing, gardening and yard work, various domestic and occupational activities, and games and other childhood pursuits.*

Duplicate objectives: 1.3 and 17.13

**15.11a\***: Increase to at least 25 percent the proportion of Hispanics aged 18 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day 5 or more times per week.

Duplicate objectives: 1.3a and 17.13a

**15.12\***: Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 18 and older.

Duplicate objectives: 3.4 and 16.6

**15.12a\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among people aged 20 and older with a high school education or less.

Duplicate objectives: 3.4a and 16.6a

**15.12b\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar workers aged 18 and older.

Duplicate objectives: 3.4b and 16.6b

**15.12c\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 3.4c and 16.6c

**15.12d\***: Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 18 and older.

Duplicate objectives: 3.4d and 16.6d

**15.12e\***: Reduce cigarette smoking to a prevalence of no more than 15 percent among Hispanics aged 18 and older.

Duplicate objectives: 3.4e and 16.6e

**15.12f\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 3.4f and 16.6f

**15.12g\***: Reduce cigarette smoking to a prevalence of no more than

20 percent among Southeast Asian men.

Duplicate objectives: 3.4g and 16.6g

**15.12h\***: Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 3.4h and 16.6h

**15.12i\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 3.4i and 16.6i

**15.12j\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 3.4j and 16.6j

**15.13**: Increase to at least 90 percent the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.

*NOTE: A blood pressure measurement within the preceding 2 years refers to a measurement by a health professional or other trained observer.*

**15.13a**: Increase to at least 90 percent the proportion of Mexican-American men who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.

**15.14**: Increase to at least 75 percent the proportion of adults who have had their blood cholesterol checked within the preceding 5 years.

**15.14a**: Increase to at least 75 percent the proportion of blacks who have ever had their blood cholesterol checked.

**15.14b**: Increase to at least 75 percent the proportion of Mexican-Americans who have ever had their blood cholesterol checked.

**15.14c**: Increase to at least 75 percent the proportion of American Indians/Alaska Natives who have ever had their blood cholesterol checked.

**15.14d**: Increase to at least 75 percent the proportion of Mexican-Americans who have had their blood cholesterol checked within the preceding 2 years.

**15.14e:** Increase to at least 75 percent the proportion of American Indians/Alaska Natives who have had their blood cholesterol checked within the preceding 2 years.

**15.14f:** Increase to at least 75 percent the proportion of Asian/Pacific Islanders who have had their blood cholesterol checked within the preceding 2 years.

**15.15:** Increase to at least 75 percent the proportion of primary care providers who initiate diet and, if necessary, drug therapy at levels of blood cholesterol consistent with current management guidelines for patients with high blood cholesterol.

*NOTE: Treatment recommendations at baseline are outlined in detail in the Report of the Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults, released by the National Cholesterol Education Program in 1987. Current treatment recommendations are described in the Second Report of the Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults, released in 1993. Treatment recommendations are likely to be refined over time. Thus, for the year 2000, "current" means whatever recommendations are then in effect.*

**15.16:** Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer high blood pressure and/or cholesterol education and control activities to their employees.

**15.17:** Increase to at least 90 percent the proportion of clinical laboratories that meet the recommended accuracy standard for cholesterol measurement.

\*Duplicate objective.

# Priority Area 16 Cancer

## Background

Cancer is the second leading cause of death in the United States, accounting for nearly one out of every four deaths (1). It is estimated that 1,252,000 Americans were diagnosed with cancer in 1995 and approximately 547,000 died of cancer that year. These American Cancer Society estimates are based on an increase in the number of older Americans who are at higher risk for developing the disease; one-half of the cases occur in persons 67 years of age and over (2).

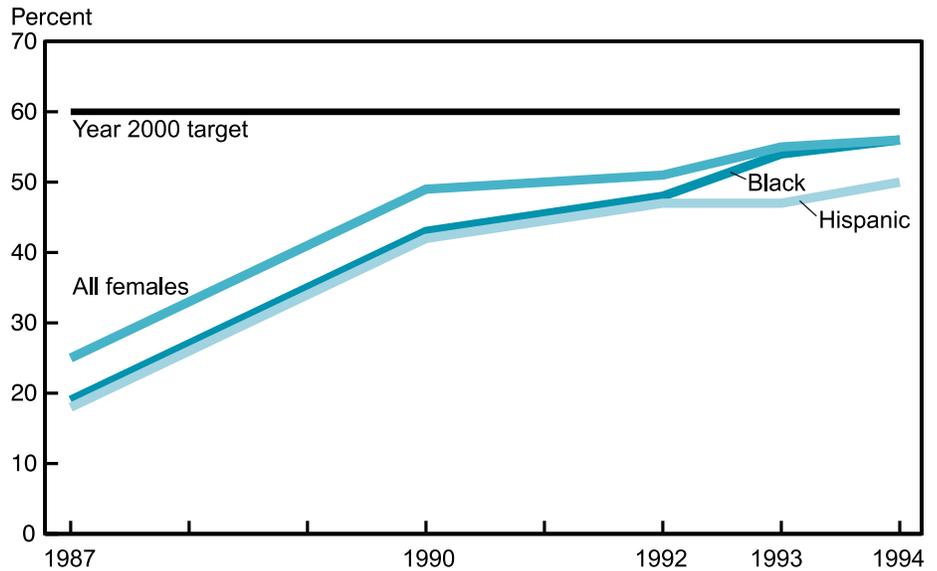
Although cancer remains a major health problem in the United States, there is evidence that the prospects of preventing and surviving cancer continue to improve. Specifically, perhaps as much as 50 percent or more of cancer incidence can be prevented through smoking cessation and changed dietary habits (3). The scientific evidence for smoking as a cause of cancer has been recognized for over 40 years. The evidence for diet has emerged over the past decade and has progressed to the extent that recommendations for prudent dietary changes, such as less fat and more fruits and vegetables, can now be made.

## Data Summary

### Highlights

Trends for objectives related to cancer mortality (16.1–16.5 and 16.17) all improved for the total population in 1995. For all cancers (16.1) the mortality rate in 1995 equaled the year 2000 target. Until 1991, the trend for lung cancer mortality (16.2) had been rising at a rate that would surpass the target. The rate actually declined in 1991 for the first time in at least 50 years and again in 1992. Lung cancer mortality remained level in 1993, then dropped again in 1994 and 1995. In 1995 the age-adjusted death rate for colorectal cancer (16.5) continued to decline and has exceeded the year 2000 target. However, the improvement in mortality has not been observed for all population subgroups and for some groups the rates increased in 1995.

**Figure 17. Percent of females 50 years and over who had a clinical breast examination and a mammogram within the past 2 years: United States, 1987, 1990, 1992–94, and year 2000 target for objective 16.11**



	1987	1988	1989	1990	1991	1992	1993	1994	Year 2000 target
All females . . . . .	25	---	---	49	---	51	55	56	60
Hispanic . . . . .	18	---	---	42	---	47	47	50	60
Black . . . . .	19	---	---	43	---	48	54	56	60

--- Data not available.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Improvement was also observed in cancer risk factors such as smoking (16.6) and dietary fat intake (16.7). Data for 1994 indicate that substantial progress has been made in increasing the numbers of women receiving mammograms (16.11) and Pap tests (16.12). For both mammograms and Pap tests, the disparity between rates for most of the population subgroups and those for all women has either been eliminated or greatly reduced.

### Summary of Progress

Progress toward the year 2000 targets has been made for a majority (12) of the 17 objectives (16.3, 16.4, 16.6–16.8, 16.10–16.14, 16.16, and 16.17). It should be noted that in many cases the actual improvement is small. New baseline and tracking data for cytology laboratory quality (16.15) indicate that the year 2000 target has been met. Total cancer mortality (16.1)

has also met the year 2000 target while lung cancer mortality (16.2) and colorectal cancer mortality (16.5) have surpassed the targets. There were no new data available to update progress for objective 16.9.

### Data Issues

#### Age-Adjusted Death Rates

The death rates shown in objectives 16.1–16.5 are age adjusted to the 1940 U.S. population. (See appendix for more information on age-adjusted rates.) The National Cancer Institute age adjusts cancer deaths to the 1970 U.S. population. When the 1970 standard population is used, the equivalent baseline, interim, and target rates are all somewhat higher than those generated using the 1940 population. However, the trends are very similar.

## Definitions

Beginning in 1992, the definition of current smoker (16.6) was modified to specifically include persons who smoked only “some days.” Prior to 1992, a current smoker was defined by the questions “Have you ever smoked 100 cigarettes in your lifetime?” and “Do you smoke now?” In 1992, data were collected and analyzed for half the respondents using these smoking questions and for the other half of respondents using a revised smoking question: “Do you smoke everyday, some days, or not at all?” The 1992 estimate combines data collected using both sets of questions. Updates after 1992 are based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

The 1989–91 estimates for objective 16.8 (fruit, vegetable, and grain intakes) exclude fruits and vegetables eaten as part of potato chips, condiments, fruit-flavored candies, jellies, and jams. The 1994 preliminary estimates do not reflect these exclusions.

Data for 1992 for objective 16.10 (tobacco, diet, and cancer screening and counseling) are from the Primary Care Provider Surveys (PCPS). The data on formulation of a diet/nutrition plan represent the proportion of providers who routinely queried 81–100 percent of their patients about these risks. The data on strategies to quit smoking refer to the proportion of providers who routinely provided these services to patients who needed the services. The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on counseling refer to the proportion of providers who routinely provided these services to patients who needed the services.

Two subobjectives in this chapter, 16.11b (mammograms) and 16.12d (Pap tests), target women with low income. Prior to 1993 these subobjectives were tracked with data for women with family incomes of less than \$10,000. Because of changes in the poverty level over time, beginning with data for 1993 these subobjectives are being tracked with data for women with family

incomes below the Census poverty threshold (see [appendix](#)).

Data from the Health Care Financing Administration indicate that virtually all laboratories meet the standards set by the Clinical Laboratory Improvements Act (16.15). In 1993–96 only 8 of 3,200 laboratories were cited with deficiencies and terminated from medical payments until the deficiencies were corrected. Therefore, the year 2000 target of 100 for this objective is considered met.

For objective 16.16, 1990 baseline and 1992 update data represent the proportion of mammography facilities that were certified by the American College of Radiology. The 1995 update measures how well the 4,200 facilities performing mammograms met the Mammogram Quality Standards Act (MQSA) quality standards. “No noncompliances” means the facility was in full compliance with MQSA. Level 1 findings are the most serious and facilities with level 1 findings receive a warning letter from the Food and Drug Administration (FDA) and must respond to it. Although level 2 and level 3 findings are considered less serious, they also must be corrected. Specifics on the types of violations included in these levels has been published by FDA (4).

## References

1. National Center for Health Statistics. Advance report of final mortality statistics, 1995. Monthly Vital Statistics Report; vol 45 no 11 supp. Hyattsville, Maryland. June 1997.
2. American Cancer Society, Cancer facts and figures, 1994. American Cancer Society, Inc. Atlanta, GA. 1994.
3. National Cancer Institute, Division of Cancer Prevention and Control. Fiscal Year 1994 Annual Report. Rockville, Maryland. 1994.
4. Food and Drug Administration/Center for Devices and Radiological Health. Mammography Matters, vol 2, issue 3. Columbia, Maryland. 1995.

Table 16. Cancer objective status

	Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
16.1*	<b>Cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	134	135	135	133	133	132	130	130
	a. Blacks . . . . .	1990	182	...	179	178	177	174	172	175
16.2*	<b>Slow the rise in lung cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	38.5	39.9	39.6	39.3	39.3	38.7	38.3	42
	a. Females . . . . .	1990	25.6	...	25.8	26.3	26.5	26.6	26.9	27
	b. Black males . . . . .	1990	86.1	...	83.1	81.2	80.7	77.6	75.7	91
16.3	<b>Female breast cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	23.0	23.1	22.7	21.9	21.5	21.3	21.0	20.6
	a. Black females . . . . .	1990	27.5	...	27.7	27.0	27.1	26.9	27.5	25
16.4	<b>Cervical cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	2.8	2.8	2.7	2.7	2.6	2.7	2.5	1.3
	a. Black females . . . . .	1990	5.9	...	5.7	6.1	5.7	5.0	5.2	3
	b. Hispanic females <sup>1</sup> . . . . .	1977–83	3.6	3.3	3.0	3.4	3.1	3.5	---	2
16.5*	<b>Colorectal cancer deaths (age adjusted per 100,000)</b> . . . . .	1987	14.7	13.8	13.5	13.2	13.1	13.0	12.8	13.2
	a. Blacks . . . . .	1990	18.1	...	17.5	17.3	17.6	17.3	17.4	16.5
16.6*	<b>Cigarette smoking prevalence</b>									
	People 18 years and over . . . . .	1987	29%	25%	26%	27%	25%	26%	---	15%
	Males . . . . .	1987	31%	28%	28%	29%	28%	28%	---	15%
	Females . . . . .	1987	27%	23%	23%	25%	22%	23%	---	15%
	a. People with high school education or less 20 years and over . . . . .	1987	34%	31%	31%	32%	30%	31%	---	20%
	b. Blue-collar workers 18 years and over . . . . .	1987	41%	36%	36%	36%	34%	39%	---	20%
	c. Military personnel . . . . .	1988	42%	---	---	35%	---	---	---	20%
	d. Blacks 18 years and over . . . . .	1987	33%	26%	29%	28%	26%	27%	---	18%
	e. Hispanics 18 years and over . . . . .	1987	24%	23%	20%	21%	20%	20%	---	15%
	f. American Indians/Alaska Natives 18 years and over . . . . .	1979–87	42–70%	38%	31%	40%	39%	40%	---	20%
	g. Southeast Asian males . . . . .	1984–88	55%	<sup>2</sup> 35%	---	---	---	---	---	20%
	h. Females of reproductive age (18–44 years) . . . . .	1987	29%	26%	27%	28%	26%	27%	---	12%
	i. Pregnant females . . . . .	1985	25%	19%	20%	---	20%	---	---	10%
	j. Females who use oral contraceptives . . . . .	1983	36%	<sup>3</sup> 26%	---	---	---	---	---	10%
16.7*	<b>Dietary fat intake among people 2 years and over</b>									
	National Health and Nutrition Examination Survey									
	Average percent of calories from total fat <sup>4</sup> . . . . .	1976–80	<sup>5</sup> 36%	---	---	---	---	<sup>6</sup> 34%	---	30%
	Average percent of calories from saturated fat <sup>4</sup> . . . . .	1976–80	<sup>5</sup> 13%	---	---	---	---	<sup>6</sup> 12%	---	10%
	Percent who met goal for fat <sup>7</sup> . . . . .	1988–94	<sup>a</sup> 27%	...	...	...	...	...	---	50%
	Percent who met goal for saturated fat <sup>7</sup> . . . . .	1988–94	<sup>a</sup> 29%	...	...	...	...	...	---	50%
	Continuing Survey of Food Intakes by Individuals									
	Average percent of calories from total fat <sup>4</sup> . . . . .	1989–91	34%	...	...	---	---	33%	33%	30%
	Average percent of calories from saturated fat <sup>4</sup> . . . . .	1989–91	12%	...	...	---	---	11%	11%	10%
	Percent who met goal for fat . . . . .	1989–91	<sup>8</sup> 22%	...	...	---	---	<sup>7</sup> 32%	<sup>7</sup> 33%	50%
	Percent who met goal for saturated fat . . . . .	1989–91	<sup>8</sup> 21%	...	...	---	---	<sup>7</sup> 34%	<sup>7</sup> 35%	50%
16.8*	<b>Average daily intake of vegetables, fruits, and grain products</b>									
	People 2 years and over									
	Average number of servings									
	Vegetables and fruits . . . . .	1989–91	<sup>8</sup> 4.1	...	...	---	---	<sup>4,9</sup> 5.0	---	5.0
	Grain products . . . . .	1989–91	<sup>8</sup> 5.8	...	...	---	---	<sup>4</sup> 6.7	---	6.0

**Table 16. Cancer objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
	Proportion who met Dietary Guidelines goal									
	Vegetables and fruits . . . . .	1989–91	<sup>8</sup> 29%	...	...	---	---	<sup>7,9</sup> 41%	---	50%
	Grain products . . . . .	1989–91	<sup>8</sup> 40%	...	...	---	---	750%	---	50%
<b>16.9</b>	<b>Actions to limit sun exposure</b>									
	Among people 18 years and over, those very likely to:									
	Limit sun exposure . . . . .	1992	<sup>a</sup> 32%	...	...	...	---	---	---	60%
	Use sun screen . . . . .	1992	<sup>a</sup> 29%	...	...	...	---	---	---	60%
	Wear protective clothing . . . . .	1992	28%	...	...	...	---	---	---	60%
	Avoid artificial ultraviolet light . . . . .	...	---	---	---	---	---	---	---	60%
<b>16.10</b>	<b>Tobacco, diet, and cancer screening and counseling by clinicians</b>									
	Smoking patients . . . . .	1981	<sup>10</sup> 52%	<sup>10,11</sup> 96%	---	---	---	---	---	75%
	Digital rectal . . . . .	...	---	<sup>11</sup> 49%	---	---	---	---	---	75%
	Blood stool . . . . .	...	---	<sup>11</sup> 56%	---	---	---	---	---	75%
	Proctoscopic exam . . . . .	...	---	<sup>11</sup> 23%	---	---	---	---	---	75%
	Breast physical . . . . .	...	---	<sup>11</sup> 78%	---	---	---	---	---	75%
	Mammogram . . . . .	...	---	<sup>11</sup> 37%	---	---	---	---	---	75%
	Pap test . . . . .	...	---	<sup>11</sup> 55%	---	---	---	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients									
	Formulation of diet/nutrition plan									
	Pediatricians . . . . .	...	---	---	---	31%	---	---	---	75%
	Nurse practitioners . . . . .	...	---	---	---	31%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	19%	---	---	---	75%
	Internists . . . . .	...	---	---	---	33%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	24%	---	---	---	75%
	Discussion of strategies to quit smoking									
	Pediatricians . . . . .	...	---	---	---	19%	---	---	---	75%
	Nurse practitioners . . . . .	...	---	---	---	20%	---	---	---	75%
	Obstetricians/gynecologists . . . . .	...	---	---	---	28%	---	---	---	75%
	Internists . . . . .	...	---	---	---	50%	---	---	---	75%
	Family physicians . . . . .	...	---	---	---	43%	---	---	---	75%
<b>16.11</b>	<b>Breast examination and mammogram</b>									
	Females 50 years and over (preceding 1–2 years) . . . . .	1987	25%	49%	---	51%	55%	56%	---	60%
	a. Hispanic females 50 years and over . . . . .	1987	18%	42%	---	47%	47%	50%	---	60%
	b. Low-income females 50 years and over (annual family income less than \$10,000) <sup>12</sup> . . . . .	1987	15%	32%	---	32%	39%	38%	---	60%
	c. Females 50 years and over with less than high school education . . . . .	1987	16%	35%	---	35%	42%	42%	---	60%
	d. Females 70 years and over . . . . .	1987	18%	39%	---	39%	44%	45%	---	60%
	e. Black females 50 years and over . . . . .	1987	19%	43%	---	48%	54%	56%	---	60%
<b>16.12</b>	<b>Pap test<sup>13</sup></b>									
	Ever received . . . . .	1987	88%	---	---	93%	95%	94%	---	95%
	a. Hispanic females 18 years and over . . . . .	1987	75%	---	---	88%	88%	91%	---	95%
	b. Females 70 years and over . . . . .	1987	76%	---	---	86%	91%	90%	---	95%
	c. Females 18 years and over with less than high school education . . . . .	1987	79%	---	---	87%	91%	91%	---	95%

**Table 16. Cancer objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
d. Low-income females 18 years and over (annual family income less than \$10,000) <sup>12</sup> . . . . .	1987	80%	---	---	89%	89%	91%	---	95%
Received within preceding 3 years . . . . .	1987	75%	---	---	74%	78%	77%	---	85%
a. Hispanic females 18 years and over . . . . .	1987	66%	---	---	74%	77%	74%	---	80%
b. Females 70 years and over . . . . .	1987	44%	---	---	46%	54%	53%	---	70%
c. Females 18 years and over with less than high school education . . . . .	1987	58%	---	---	58%	64%	62%	---	75%
d. Low-income females 18 years and over (annual family income less than \$10,000) <sup>12</sup> . . . . .	1987	64%	---	---	65%	71%	72%	---	80%
<b>16.13 Fecal occult blood test and proctosigmoidoscopy (50 years and over)</b>									
Received fecal occult blood testing within preceding 2 years . . . . .	1987	27%	---	---	30%	---	---	---	50%
Ever received proctosigmoidoscopy . . . . .	1987	25%	---	---	33%	---	---	---	40%
People 65 years and over with routine checkup in past 2 years who had a fecal blood test . . . . .	...	---	---	36%	---	---	---	---	...
<b>16.14 Oral, skin, and digital rectal examinations</b>									
People 50 years and over (during past year) . . . . .	...	---	---	---	---	---	---	---	40%
Oral . . . . .	...	---	---	---	9%	---	---	---	...
Skin . . . . .	...	---	---	---	17%	---	---	---	...
Digital rectal . . . . .	1987	27%	---	---	38%	---	---	---	...
<b>16.15 Pap test quality</b>									
Monitoring cytology laboratory . . . . .	1988–92	<sup>14</sup> 100%	...	...	...	---	---	<sup>15,16</sup> 100%	100%
<b>16.16 Monitoring and certifying mammography facilities</b>									
Certified by American College of Radiology . . . . .	1990	18–21%	...	---	64%	---	---	---	100%
Mammogram Quality Standards Act compliance									
No noncompliances . . . . .	...	---	---	---	---	---	---	32.5%	...
Level 3 findings . . . . .	...	---	---	---	---	---	---	48.6%	...
Level 2 findings . . . . .	...	---	---	---	---	---	---	15.8%	...
Level 1 findings . . . . .	...	---	---	---	---	---	---	3.1%	...
<b>16.17* Oral cancer deaths (per 100,000)</b>									
Males 45–74 years . . . . .	1987	13.6	13.4	12.7	12.2	12.1	11.1	11.0	10.5
Females 45–74 years . . . . .	1987	4.8	4.6	4.6	4.3	4.2	4.0	3.9	4.1
a. Black males 45–74 years . . . . .	1990	29.4	...	26.9	27.3	26.2	25.2	23.4	26.0
b. Black females 45–74 years . . . . .	1990	6.9	...	6.9	6.0	5.8	5.7	6.4	6.9

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Updates exclude data from States lacking a Hispanic-origin item on their death certificate or for which Hispanic origin data were not of sufficient quality. See [appendix](#).

<sup>2</sup>Vietnamese males only.

<sup>3</sup>1988 data.

<sup>4</sup>One-day dietary data.

<sup>5</sup>For persons up to 74 years.

<sup>6</sup>1988–94 data.

<sup>7</sup>Two-day dietary data.

<sup>8</sup>Three-day dietary data.

<sup>9</sup>Preliminary estimate.

<sup>10</sup>Data reflect tobacco screening and counseling only.

<sup>11</sup>1989 data.

<sup>12</sup>Beginning with 1993, data are for women with family incomes below the Census poverty threshold.

<sup>13</sup>Includes women without a uterine cervix.

<sup>14</sup>15 of 3,200 laboratories closed or limited in cytology testing.

<sup>15</sup>1993–96 data.

<sup>16</sup>8 of 3,200 laboratories terminated from medical payments until differences corrected.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
16.1*, 16.1a	National Vital Statistics System, CDC, NCHS.
16.2*, 16.2a,b	National Vital Statistics System, CDC, NCHS.
16.3, 16.3a	National Vital Statistics System, CDC, NCHS.
16.4, 16.4a	National Vital Statistics System, CDC, NCHS.
16.4b	Baseline: Surveillance, Epidemiology, and End Results (SEER), NIH, NCI. Updates: National Vital Statistics System, CDC, NCHS.
16.5*, 16.5a	National Vital Statistics System, CDC, NCHS.
16.6*, 16.6a,b,d,e,h	National Health Interview Survey, CDC, NCHS.
16.6c	Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DoD, OASD.
16.6f	Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.
16.6g	Baseline: Local surveys.
16.6i	Baseline and 1991 update: National Health Interview Survey, CDC, NCHS. 1993 update: National Health and Pregnancy Survey, NIH, NIDA.
16.6j	Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.
16.7*	1976–80 and 1988–94 data: National Health and Nutrition Examination Survey, CDC, NCHS. 1989–91 baselines and 1994–95 updates: Continuing Survey of Food Intakes by Individuals, USDA.
16.8*	Continuing Survey of Food Intakes by Individuals, USDA.
16.9	National Health Interview Survey, CDC, NCHS.
16.10	1981 baseline: Physician Practice Study, University of Chicago. 1989 updates: Survey of Physician's Attitudes and Practices in Early Cancer Detection, NCI. 1992 updates: Primary Care Provider Surveys, OASH, ODPHP.
16.11, 16.11a–d	National Health Interview Survey, CDC, NCHS.
16.12, 16.12a–d	National Health Interview Survey, CDC, NCHS.
16.13	National Health Interview Survey, CDC, NCHS.
16.14	National Health Interview Survey, CDC, NCHS.
16.15	Clinical Laboratory Improvements Act (CLIA), HCFA.
16.16	Baseline and 1992 update: American College of Radiology. 1995 updates: Mammography Quality Assurance Program, FDA.
16.17*, 16.17a,b	National Vital Statistics System, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Cancer Objectives

**16.1\***: Reverse the rise in cancer deaths to achieve a rate of no more than 130 per 100,000 people.

Duplicate objective: 2.2

**16.1a\***: Reverse the rise in cancer deaths among blacks to achieve a rate of no more than 175 per 100,000 people.

Duplicate objective: 2.2a

**16.2\***: Slow the rise in lung cancer deaths to achieve a rate of no more than 42 per 100,000 people.

Duplicate objective: 3.2

**16.2a\***: Slow the rise in lung cancer deaths among females to no more than 27 per 100,000.

Duplicate objective: 3.2a

**16.2b\***: Slow the rise in lung cancer deaths among black males to no more than 91 per 100,000.

Duplicate objective: 3.2b

**16.3**: Reduce breast cancer deaths to no more than 20.6 per 100,000 women.

**16.3a**: Reduce breast cancer deaths among black females to no more than 25 per 100,000 women.

**16.4**: Reduce deaths from cancer of the uterine cervix to no more than 1.3 per 100,000 women.

**16.4a**: Reduce deaths from cancer of the uterine cervix among black females to no more than 3 per 100,000 women.

**16.4b**: Reduce deaths from cancer of the uterine cervix among Hispanic females to no more than 2 per 100,000 women.

**16.5\***: Reduce colorectal cancer deaths to no more than 13.2 per 100,000 people.

Duplicate objective: 2.23

**16.5a\***: Reduce colorectal cancer deaths among blacks to no more than 16.5 per 100,000 people.

Duplicate objective: 2.23a

**16.6\***: Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 18 and older.

Duplicate objectives: 3.4 and 15.12

**16.6a\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among people aged 20 and older with a high school education or less.

Duplicate objectives: 3.4a and 15.12a

**16.6b\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar workers aged 18 and older.

Duplicate objectives: 3.4b and 15.12b

**16.6c\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 3.4c and 15.12c

**16.6d\***: Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 18 and older.

Duplicate objectives: 3.4d and 15.12d

**16.6e\***: Reduce cigarette smoking to a prevalence of no more than 15 percent among Hispanics aged 18 and older.

Duplicate objectives: 3.4e and 15.12e

**16.6f\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 3.4f and 15.12f

**16.6g\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among Southeast Asian men.

Duplicate objectives: 3.4g and 15.12g

**16.6h\***: Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 3.4h and 15.12h

**16.6i\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 3.4i and 15.12i

**16.6j\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 3.4j and 15.12j

**16.7\***: Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the Dietary Guidelines' average daily goal of no more than 30 percent of calories from fat, and increase to at least 50 percent the proportion of people aged 2 and older who meet the average daily goal of less than 10 percent of calories from saturated fat.

Duplicate objectives: 2.5 and 15.9

**16.8\***: Increase complex carbohydrate and fiber-containing foods in the diets of adults to five or more daily servings for vegetables (including legumes) and fruits, and to six or more daily servings for grain products. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the Dietary Guidelines' average daily goal of 5 or more servings of vegetables/fruits, and increase to at least 50 percent the proportion who meet the goal of 6 or more servings of grain products.

Duplicate objective: 2.6

*NOTE: The definition of vegetables, fruits, and grain products and serving size designations are derived from the Food Guide Pyramid. Vegetable, fruit, and grain ingredients from mixtures are included in the total, and fractions of servings are counted.*

**16.9**: Increase to at least 60 percent the proportion of people of all ages who limit sun exposure, use sunscreens and protective clothing when exposed to sunlight, and avoid artificial sources of ultraviolet light (e.g., sun lamps, tanning booths).

**16.10**: Increase to at least 75 percent the proportion of primary care providers who routinely counsel patients about tobacco-use cessation, diet modification, and cancer screening recommendations, which includes providing information on the potential benefit or harm attributed to the various

screening modalities and discussion of risk factors associated with breast, prostate, cervical, colorectal, and lung cancers.

**16.11:** Increase to at least 60 percent those women aged 50 and older who have received a clinical breast examination and a mammogram within the preceding 1 to 2 years.

**16.11a:** Increase to at least 60 percent Hispanic women aged 50 and older who have received a clinical breast examination and a mammogram within the preceding 2 years.

**16.11b:** Increase to at least 60 percent low-income women aged 50 and older who have received a clinical breast examination and a mammogram within the preceding 2 years.

**16.11c:** Increase to at least 60 percent women aged 50 and older with less than high school education who have received a clinical breast examination and a mammogram within the preceding 2 years.

**16.11d:** Increase to at least 60 percent women aged 70 and older who have received a clinical breast examination and a mammogram within the preceding 2 years.

**16.11e:** Increase to at least 60 percent black women aged 50 and older who have received a clinical breast examination and a mammogram within the preceding 2 years.

**16.12:** Increase to at least 95 percent the proportion of women aged 18 and older who have ever received a Pap test, and to at least 85 percent those who received a Pap test within the preceding 1 to 3 years.

**16.12a:** Increase to at least 95 percent the proportion of Hispanic women aged 18 and older who have ever received a Pap test, and to at least 80 percent those who received a Pap test within the preceding 3 years.

**16.12b:** Increase to at least 95 percent the proportion of women aged 70 and older who have ever received a Pap test, and to at least 70 percent those who received a

Pap test within the preceding 3 years.

**16.12c:** Increase to at least 95 percent the proportion of women aged 18 and older with less than a high school education who have ever received a Pap test, and to at least 75 percent those who received a Pap test within the preceding 3 years.

**16.12d:** Increase to at least 95 percent the proportion of low-income women (annual family income less than \$10,000) aged 18 and older who have ever received a Pap test, and to at least 80 percent those who received a Pap test within the preceding 3 years.

**16.13:** Increase to at least 50 percent the proportion of people aged 50 and older who have received fecal occult blood testing within the preceding 1 to 2 years, and to at least 40 percent those who have ever received proctosigmoidoscopy.

**16.14:** Increase to at least 40 percent the proportion of people aged 50 and older visiting a primary care provider in the preceding year who have received oral, skin, and digital rectal examinations during one such visit.

**16.15:** Ensure that Pap tests meet quality standards by monitoring and certifying all cytology laboratories.

**16.16:** Ensure that mammograms meet quality standards by inspecting and certifying 100 percent of mammography facilities according to the requirements of the Mammography Quality Standards Act.

**16.17\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 10.5 per 100,000 men aged 45–74 and 4.1 per 100,000 women aged 45–74.

Duplicate objectives: 3.17 and 13.7

**16.17a\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 26.0 per 100,000 among black males aged 45–74.

Duplicate objectives: 3.17a and 13.7a

**16.17b\*:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 6.9 per

100,000 among black females aged 45–74.

Duplicate objectives: 3.17b and 13.7b

\*Duplicate objective.

# Priority Area 17 Diabetes and Chronic Disabling Conditions

## Background

As the population of the United States grows older, the problems posed by chronic and disabling conditions increasingly demand the Nation's attention. Quality, not merely quantity, of life has become a major issue. Chronic and disabling conditions that significantly affect quality of life include diabetes, arthritis, deformities or orthopedic impairments, hearing and visual impairments, and mental retardation.

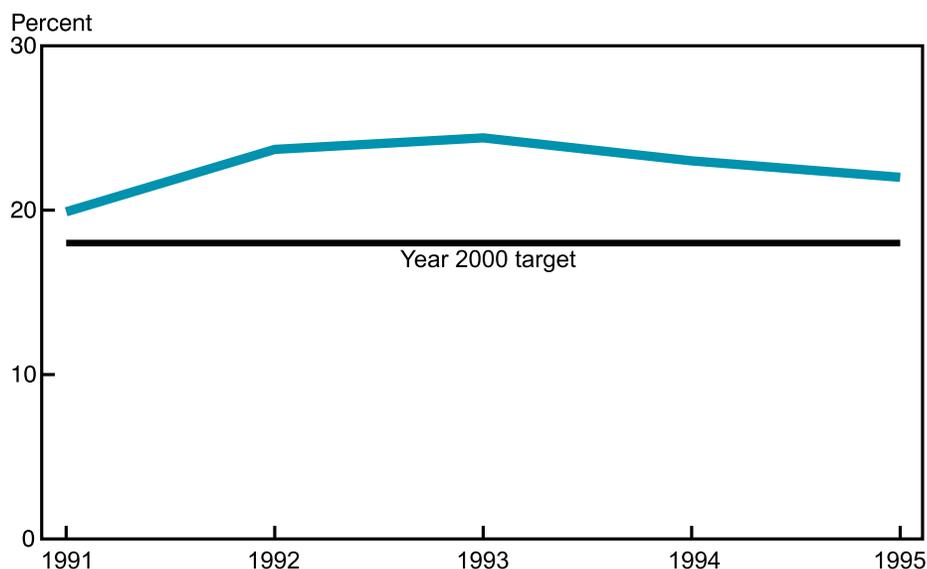
Disability, defined by a limitation of the ability to perform major activities caused by chronic health conditions and impairments, affects an increasing number of Americans (more than 10 percent in 1994) (1). Nearly 40 million people have functional limitations that interfere with their daily activities, and about 12 million have limitations that prevent them from working, attending school, or maintaining a household. The underlying conditions most often responsible for these limitations are arthritis, heart disease, back conditions, lower extremity impairments, and intervertebral disc disorders (2). For those under 18 years of age, the most frequent causes of activity limitation are asthma, mental retardation, mental illness, and hearing and speech impairments.

## Data Summary

### Highlights

Several measures of chronic disability that had been increasing showed declines in the most recent data year. These included people limited in major activity due to chronic conditions (17.2), people limited in activity due to asthma (17.4), people with significant hearing impairment (17.6), and people with significant visual impairment (17.7). Rates for people with activity limitation due to chronic back conditions (17.5) continued the upward trend away from the year 2000 target in

**Figure 18. Prevalence of peptic ulcer disease for people 18 years and over: United States, 1991–95, and year 2000 target for objective 17.21**



	1991	1992	1993	1994	1995	Year 2000 target
People 18 years and over . . .	19.9	23.7	24.4	23.0	22.0	18.0

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

1994. Data for 1992–94 indicate a sharp increase in diabetes incidence (17.11). The prevalence of diabetes (17.11), although remaining constant in 1992–94, has generally been increasing, especially for blacks and American Indians/Alaska Natives. Similarly, although diabetes mortality for the total population remained constant in 1995, rates for blacks and American Indians/Alaska Natives increased considerably. Data for the new objective on prevalence of peptic ulcer (17.21) indicate that, after increasing for several years, the rate has been declining since 1993. The increase in years of healthy life (17.1) in 1994 is discussed in the text for Priority Area 8.

### Summary of Progress

Data are available to assess progress for 17 of the 23 objectives in this priority area. Four objectives (17.7, 17.13, 17.22, and 17.23) are moving toward the year 2000 targets. Eleven (17.1, 17.2, 17.4–17.6, 17.8–17.12, and 17.21) are moving away from the targets. The progress of 17.14 is being measured with the data for the

subobjectives and the trends are mixed. The year 2000 target for worksites with policies for hiring people with disabilities (17.19) has been met via legislation. People with self-care problems (17.3) showed no change for the noninstitutionalized population. Earlier detection of significant hearing impairments (17.16) also showed no change. For the remaining four objectives one has no baseline (17.20) and three have no data beyond the baseline to assess progress (17.15, 17.17, and 17.18). Progress for 17.22 is described in the text for Priority Area 22, which discusses the duplicate objective (22.4).

Objective 17.19 calls for the voluntary establishment of policies or programs for the hiring of people with disabilities. Since this objective was created, Congress has passed the Americans with Disabilities Act of 1990 (ADA) that prohibits all employers from discriminating against a “qualified disabled individual because of the disability in regard to job application procedures, hiring, advancement...” (3).

Assuming full compliance with the ADA, this objective has been achieved via legislation.

## Data Issues

### Years of Healthy Life

The concept of increasing the span of healthy life is one of the three *Healthy People 2000* goals and a specific measure has been developed to track an objective in three priority areas (8.1, 17.1, and 21.1). See the [appendix](#) for a discussion of years of healthy life.

### Definitions

Subobjective 17.2a (limitation in major activity due to chronic conditions) targets people with low income. Originally this subobjective was tracked with data for people with annual family incomes of less than \$10,000. Because of changes in the poverty level over time, data are also shown for people with family incomes below Census poverty threshold (see [appendix](#)).

The baseline data for 17.8 (mental retardation) were revised to be comparable with data from the Metropolitan Atlanta Developmental Disabilities Surveillance Program, which uses school counts of children classified as mentally retarded. This system will be used to track the objective.

The 1990 baseline data for diabetes-related deaths for Puerto Ricans (17.9d) have been revised. The original baseline published in the *Midcourse Review and 1995 Revisions* (4) included data for 45 States and the District of Columbia. It did not include data for New York where more than one-half of the U.S. Puerto Rican population resides. The revised baseline, which includes data for 47 States and the District of Columbia (including New York), is considerably lower than originally published and, in fact, is below the year 2000 target for this subobjective. The number of States reporting Hispanic origin data on their birth and death certificates has varied from year to year; see [appendix](#) for more information.

Overweight (objective 17.12) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 National Health and Nutrition Examination Survey (NHANES II) reference population 20–29 years of age. For

adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see [Note](#) with the text of objective 17.12). BMI cutoff points for adults are 27.8 kilograms per meter squared for males, and 27.3 kilograms per meter squared for females. Current international research appears to indicate that a lower BMI of 25 kilograms per meter squared may be more clinically relevant to increased risk of cardiovascular disease (5.6).

Data for objectives 17.15 and 17.17 (clinical assessment of childhood development and cognitive assessment of older adults) are from the Primary Care Provider Surveys (PCPS). The data on testing/evaluation-inquiry represent the proportion of providers who routinely queried 81–100 percent of their patients about specific functioning. The data on treatment/referral refer to the proportion of providers who routinely provided these services to patients who needed the services. The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups.

### Data Source Description

Diabetes-related mortality data (17.9) are derived from the multiple-cause-of-death files. Data include all mentions of diabetes on the death certificate, whether as an underlying or contributing cause of death. Diabetes is approximately three times as likely to be listed as contributing cause of death than as the underlying cause.

### Comparability of Data Sources

Overweight (objective 17.12) is being tracked with two main data sources. The primary data source is the NHANES, which provided baseline data for most of the overweight objectives and the 1988–94 updates. These data are derived from measured height and weight. Interim estimates shown in an earlier publication (7), updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities are derived from the NHIS. These estimates are based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. Trends from the NHIS that are based on self-reported measures also show a

steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

Objective 17.13 (light-to-moderate physical activity) is being tracked with the NHIS. Because the questionnaire changed in 1991, databases for all 3 years of data (1985, 1990, and 1991) were made as similar as possible before calculating estimates. This process involved limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific activities listed to those asked in all 3 years.

### Data Availability

The 1984–85 baseline figures for 17.3 were derived by combining estimates for the noninstitutionalized population from the NHIS with data for the nursing home population from the National Nursing Home Survey. At the present time, only data for the noninstitutionalized population are available to update progress. Updated data for the total U.S. population will be available by combining data from the 1994 NHIS Second Supplement on Aging with data from the 1995 National Nursing Home Survey.

## References

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3. Americans with Disabilities Act of 1990. Public Law 101–336, 101st Congress. Washington. July 1990.
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5. World Health Organization. Physical status: The use and interpretation of anthropometry. Report of a WHO Expert Committee. WHO Technical Report Series 854. Geneva: World Health Organization. 1995.
6. U.S. Department of Agriculture, Agricultural Research Service, Dietary Guidelines Committee, 1995. Report of the dietary guidelines advisory committee on the dietary guidelines for Americans to the Secretary of Health and Human Services and the Secretary of Agriculture. 1995.
7. National Center for Health Statistics. Healthy people 2000 review, 1992. Hyattsville, Maryland: Public Health Service. 1993.

**Table 17. Diabetes and chronic disabling conditions objective status**

Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
	<b>17.1* Years of healthy life</b>	1990	64.0	...	63.9	63.7	63.5	63.8	---
a. Blacks	1990	56.0	...	56.0	55.6	55.2	55.6	---	60
b. Hispanics <sup>1</sup>	1990	64.8	...	63.6	<sup>2</sup> 64.0	63.2	64.2	---	65
c. People 65 years and over <sup>3</sup>	1990	11.9	...	11.8	11.9	11.9	12.1	---	14
<b>17.2 Limitation in major activity due to chronic conditions</b>	1988	9.4%	9.3%	9.6%	10.3%	10.6%	10.3%	10.1%	8%
a. Low-income people (annual family income less than \$10,000) (below poverty level)	1988	18.9%	19.2%	19.6%	20.2%	20.9%	21.1%	21.4%	15%
	...	---	14.6%	15.5%	16.2%	16.5%	16.8%	17.1%	...
b. American Indians/Alaska Natives	1983-85	13.4%	<sup>4</sup> 12.3%	<sup>5</sup> 12.0%	<sup>6</sup> 12.6%	<sup>7</sup> 12.4%	<sup>8</sup> 13.3%	<sup>9</sup> 13.5%	11%
c. Blacks	1988	11.2%	10.7%	11.0%	12.2%	12.6%	12.5%	12.2%	9%
d. Puerto Ricans	1989-91	11.7%	...	...	<sup>6</sup> 12.0%	<sup>7</sup> 12.7%	<sup>8</sup> 13.4%	<sup>9</sup> 13.4%	10%
<b>17.3* People with self-care problems (per 1,000)</b>									
People 65 years and over	1984-85	111	---	---	---	---	---	---	90
Noninstitutionalized population	...	---	<sup>10</sup> 77	<sup>11</sup> 77	---	---	---	---	...
a. People 85 years and over	1984-85	371	---	---	---	---	---	---	325
Noninstitutionalized population	...	---	<sup>10</sup> 223	<sup>11</sup> 204	---	---	---	---	...
b. Blacks 65 years and over	1984-85	<sup>a</sup> 132	---	---	---	---	---	---	98
Noninstitutionalized population	...	---	<sup>10</sup> 104	<sup>11</sup> 112	---	---	---	---	...
<b>17.4 Percent of people with asthma with activity limitation</b>	1986-88	19.4%	<sup>4</sup> 20.4%	<sup>5</sup> 21.8%	<sup>6</sup> 21.8%	<sup>7</sup> 22.5%	<sup>8</sup> 22.0%	---	10%
a. Blacks	1989-91	30.5%	...	...	<sup>6</sup> 30.3%	<sup>7</sup> 32.1%	<sup>8</sup> 31.5%	---	19%
b. Puerto Ricans <sup>12</sup>	...	---	---	---	---	---	---	---	22%
<b>17.5 Activity limitation due to chronic back conditions (per 1,000)</b>	1986-88	21.9	<sup>4</sup> 23.7	<sup>5</sup> 25.1	<sup>6</sup> 25.3	<sup>7</sup> 27.3	<sup>8</sup> 28.1	---	19.0
<b>17.6 Significant hearing impairment (per 1,000)</b>	1986-88	88.9	<sup>4</sup> 89.5	<sup>5</sup> 89.7	<sup>6</sup> 93.5	<sup>7</sup> 93.6	<sup>8</sup> 91.9	<sup>9</sup> 89.0	82.0
a. People 45 years and over	1986-88	203	<sup>4</sup> 206.2	<sup>5</sup> 205.2	<sup>6</sup> 215.7	<sup>7</sup> 213.2	<sup>8</sup> 207.4	<sup>9</sup> 200.4	180
<b>17.7 Significant visual impairment (per 1,000)</b>	1986-88	34.5	<sup>4</sup> 32.5	<sup>5</sup> 31.7	<sup>6</sup> 32.8	<sup>7</sup> 34.8	<sup>8</sup> 35.1	<sup>9</sup> 34.0	30.0
a. People 65 years and over	1986-88	87.7	<sup>4</sup> 81.8	<sup>5</sup> 78.0	<sup>6</sup> 79.8	<sup>7</sup> 87.4	<sup>8</sup> 88.3	<sup>9</sup> 84.6	70.0
<b>17.8* Mental retardation (per 1,000 children)</b>									
Children 10 years with IQ less than 50	1985-87	<sup>a</sup> 3.1	---	---	<sup>13</sup> 4.0	---	---	---	2.0
<b>17.9 Diabetes-related deaths (age adjusted per 100,000)</b>	1986	38	38	38	38	40	40	40	34
a. Blacks	1986	67	71	71	71	74	73	76	58
b. American Indians/Alaska Natives	1986	46	53	51	57	60	58	63	41
c. Mexican-Americans <sup>14</sup>	1990	<sup>a</sup> 55.7	...	50.3	51.1	56.6	55.6	56.7	50
d. Puerto Ricans <sup>14</sup>	1990	<sup>a</sup> 40.7	...	47.2	48.7	48.5	57.8	63.2	42
<b>17.10 Diabetes-related complications</b>									
People with diabetes									
End-stage renal disease (ESRD) (per 1,000)	1987	1.5	2.5	2.5	2.7	2.4	---	---	1.4
Blindness (per 1,000)	1987	2.2	2.5	2.4	2.3	2.1	2.2	---	1.4
Lower extremity amputation (per 1,000)	1987	8.2	8.6	6.2	7.8	7.3	8.6	9.4	4.9
Perinatal mortality (among infants of females with established diabetes)	1988	5%	---	---	---	---	---	---	2%
Major congenital malformations	1988	8%	---	---	---	---	---	---	4%
ESRD due to diabetes (per 1,000)									
a. Blacks with diabetes	1983-86	2.2	<sup>15</sup> 3.1	---	---	<sup>16</sup> 5.7	---	---	2.0
b. American Indians/Alaska Natives with diabetes <sup>17</sup>	1983-86	2.1	4.2	4.4	5.4	---	---	---	1.9

Table 17. Diabetes and chronic disabling conditions objective status—Con.

Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
Lower extremity amputations due to diabetes									
c. Blacks with diabetes (per 1,000)	1987	<sup>a</sup> 9.0	8.0	11.1	8.6	8.6	9.1	10.2	6.1
<b>17.11* Diabetes incidence and prevalence</b>									
Total population (per 1,000)									
Incidence of diabetes	1986–88	2.9	<sup>4</sup> 2.6	<sup>5</sup> 2.5	<sup>6</sup> 2.4	<sup>7</sup> 2.8	<sup>8</sup> 3.1	---	2.5
Prevalence of diabetes	1986–88	28	<sup>4</sup> 26	<sup>5</sup> 27	<sup>6</sup> 28	<sup>7</sup> 30	<sup>8</sup> 30	<sup>9</sup> 31	25
Prevalence of diabetes (per 1,000)									
a. American Indians/Alaska Natives <sup>17</sup>	1987	69	67	---	67	70	73	---	62
b. Puerto Ricans (ages 20–74)	1982–84	55	---	---	---	---	---	---	49
c. Mexican-Americans (ages 20–74)	1982–84	54	---	---	---	---	<sup>18</sup> 66	---	49
d. Cuban Americans (ages 20–74)	1982–84	36	---	---	---	---	---	---	32
e. Blacks (all ages)	1986–88	36	<sup>4</sup> 36	<sup>5</sup> 36	<sup>6</sup> 36	<sup>7</sup> 38	<sup>8</sup> 40	<sup>9</sup> 42	32
<b>17.12* Overweight prevalence</b>									
(Based on measured height and weight unless otherwise indicated)									
Adults 20–74	1976–80	26%	---	---	---	---	<sup>19,20</sup> 35%	---	20%
Males	1976–80	24%	---	---	---	---	<sup>19,21</sup> 34%	---	20%
Females	1976–80	27%	---	---	---	---	<sup>19,22</sup> 37%	---	20%
Adolescents 12–19 years	1976–80	15%	---	---	---	---	<sup>23</sup> 24%	---	15%
a. Low-income females 20–74 years	1976–80	37%	---	<sup>24</sup> 47%	---	---	---	---	25%
b. Black females 20–74 years	1976–80	44%	---	---	---	---	<sup>19,25</sup> 52%	---	30%
c. Hispanic females 20–74 years	...	---	---	---	---	---	---	---	25%
Hispanic females 20 years and over (self-reported) <sup>26</sup>	...	---	33%	32%	32%	33%	---	---	...
Mexican-American females 20–74 years	1982–84	39%	---	---	---	---	<sup>19</sup> 50%	---	...
Cuban females 20–74 years	1982–84	34%	---	---	---	---	---	---	...
Puerto Rican females 20–74 years	1982–84	37%	---	---	---	---	---	---	...
d. American Indians/Alaska Natives 20 years and over	1984–88	29–75%	---	<sup>26</sup> 40%	<sup>26</sup> 36%	<sup>26</sup> 48%	---	---	30%
e. People with disabilities 20 years and over (self-reported) <sup>26</sup>	1985	36%	---	38%	37%	38%	---	---	25%
f. Females with high blood pressure 20–74 years	1976–80	50%	---	---	---	---	---	---	41%
g. Males with high blood pressure 20–74 years	1976–80	39%	---	---	---	---	---	---	35%
h. Mexican-American males 20–74 years	1982–84	30%	---	---	---	---	<sup>19,27</sup> 37%	---	25%
<b>17.13* Moderate physical activity</b>									
People 6 years and over	...	---	---	---	---	---	---	---	30%
People 18–74 years									
5 or more times per week	1985	22%	23%	24%	---	---	---	---	30%
7 or more times per week	1985	16%	16%	17%	---	---	---	---	30%
a. Hispanics 18 years and over									
5 or more times per week	1991	20%	...	...	---	---	---	---	25%
<b>17.14 Patient education for people with chronic and disabling conditions</b>									
a. People with diabetes classes	1983–84	32%	<sup>15</sup> 33.1%	39%	---	43%	---	---	75%
People with diabetes counseling	1983–84	68%	---	---	---	---	---	---	...
b. People with asthma	1991	9%	...	...	---	10%	---	---	50%
c. Blacks with diabetes classes	1991	34%	...	...	---	50%	---	---	75%
d. Hispanics with diabetes classes	1991	27%	...	...	---	26%	---	---	75%

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	Baseline	Baseline	1990	1991	1992	1993	1994	1995	Target
	year								2000
<b>17.15 Clinician assessment of childhood development</b> . . . . .	...	---	---	---	---	---	---	---	80%
Percent of clinicians routinely providing service to 81–100% of patients (children)									
Visual acuity testing (3 years and over)									
Pediatricians . . . . .	1992	55%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	49%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	30%	...	...	...	---	---	---	80%
Hearing testing (3 years and over)									
Pediatricians . . . . .	1992	47%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	46%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	19%	...	...	...	---	---	---	80%
Evaluation of speech									
Pediatricians . . . . .	1992	65%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	51%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	39%	...	...	...	---	---	---	80%
Evaluation of motor development									
Pediatricians . . . . .	1992	72%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	56%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	45%	...	...	...	---	---	---	80%
Treatment/referral for vision problems									
Pediatricians . . . . .	1992	67%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	35%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	56%	...	...	...	---	---	---	80%
Treatment/referral for hearing problems									
Pediatricians . . . . .	1992	66%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	35%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	55%	...	...	...	---	---	---	80%
Treatment/referral for speech problems									
Pediatricians . . . . .	1992	62%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	34%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	48%	...	...	...	---	---	---	80%
Treatment/referral for motor problems									
Pediatricians . . . . .	1992	55%	...	...	...	---	---	---	80%
Nurse practitioners . . . . .	1992	33%	...	...	...	---	---	---	80%
Family physicians . . . . .	1992	49%	...	...	...	---	---	---	80%
<b>17.16 Earlier detection of significant hearing impairment in children (average age in months)</b> . . . . .	1988	<sup>1</sup> 24–30	---	<sup>28</sup> 27	---	---	---	---	12
a. Blacks . . . . .	1991	<sup>28</sup> 36	...	...	---	---	---	---	12
<b>17.17 Clinician assessment of cognitive and other functioning in older adults</b> . . . . .	...	---	---	---	---	---	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients (adults 65 years and over)									

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Visual acuity testing									
Nurse practitioners . . . . .	1992	24%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	3%	...	...	...	---	---	---	60%
Internists . . . . .	1992	15%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	12%	...	...	...	---	---	---	60%
Hearing acuity testing									
Nurse practitioners . . . . .	1992	16%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	2%	...	...	...	---	---	---	60%
Internists . . . . .	1992	9%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	7%	...	...	...	---	---	---	60%
Evaluation of physical mobility									
Nurse practitioners . . . . .	1992	41%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	18%	...	...	...	---	---	---	60%
Internists . . . . .	1992	42%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	26%	...	...	...	---	---	---	60%
Evaluation for dementia									
Nurse practitioners . . . . .	1992	28%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	9%	...	...	...	---	---	---	60%
Internists . . . . .	1992	23%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	13%	...	...	...	---	---	---	60%
Inquiry about urinary incontinence									
Nurse practitioners . . . . .	1992	33%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	...	---	---	---	---	---	---	---	60%
Internists . . . . .	1992	30%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	15%	...	...	...	---	---	---	60%
Treatment/referral for vision problems									
Nurse practitioners . . . . .	1992	33%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	35%	...	...	...	---	---	---	60%
Internists . . . . .	1992	63%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	54%	...	...	...	---	---	---	60%
Treatment/referral for hearing problems									
Nurse practitioners . . . . .	1992	30%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	34%	...	...	...	---	---	---	60%
Internists . . . . .	1992	52%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	46%	...	...	...	---	---	---	60%
Prescription of mobility aids/modification of living environment to improve mobility									
Nurse practitioners . . . . .	1992	18%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	15%	...	...	...	---	---	---	60%
Internists . . . . .	1992	31%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	25%	...	...	...	---	---	---	60%

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Investigation of/referral for treatable causes of dementia									
Nurse practitioners . . . . .	1992	31%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	27%	...	...	...	---	---	---	60%
Internists . . . . .	1992	54%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	40%	...	...	...	---	---	---	60%
Treatment/referral for urinary incontinence									
Nurse practitioners . . . . .	1992	31%	...	...	...	---	---	---	60%
Obstetricians/gynecologists . . . . .	1992	56%	...	...	...	---	---	---	60%
Internists . . . . .	1992	37%	...	...	...	---	---	---	60%
Family physicians . . . . .	1992	31%	...	...	...	---	---	---	60%
<b>17.18 Perimenopausal women counseled about estrogen replacement therapy</b>									
Women 40–60 years . . . . .	1994	80%	...	...	...	...	...	---	90%
Women 40–49 years . . . . .	1994	76%	...	...	...	...	...	---	90%
Women 50–60 years . . . . .	1994	83%	...	...	...	...	...	---	90%
<b>17.19 Worksites with policies for hiring people with disabilities<sup>29</sup></b>									
Worksites with a voluntary policy . . . . .	1986	37%	100%	100%	100%	100%	100%	100%	75%
<b>17.20 Service systems for children with or at risk of chronic and disabling conditions (number of States)</b>	...	---	---	---	---	---	---	---	50
<b>17.21 Prevalence of peptic ulcer (per 1,000)</b>									
People 18 years and over . . . . .	1991	19.9	...	...	23.7	24.4	23.0	22.0	18
<b>17.22* Identify gaps in health data</b>									
Establish mechanisms to meet needs <sup>30</sup> . . . . .	...	---	---	---	---	---	---	---	...
<b>17.23 People with diabetes who have an annual dilated eye exam</b>									
People 18 years and over . . . . .	1989	49%	...	<sup>24</sup> 52%	---	---	---	---	70%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Estimate based on preliminary data. Excludes mortality data from States lacking a Hispanic-origin item on their death certificate or for which Hispanic origin data were not of sufficient quality.

See [appendix](#).

<sup>2</sup>Estimate derived from 1991–93 health status data and 1992 mortality data.

<sup>3</sup>Years of healthy life remaining at age 65.

<sup>4</sup>1988–90 data.

<sup>5</sup>1989–91 data.

<sup>6</sup>1990–92 data.

<sup>7</sup>1991–93 data.

<sup>8</sup>1992–94 data.

<sup>9</sup>1993–95 data.

<sup>10</sup>1984 data.

<sup>11</sup>1986 data.

<sup>12</sup>Data are unreliable. Relative standard error is greater than 30%.

<sup>13</sup>1991–92 data.

<sup>14</sup>Excludes data from States lacking a Hispanic-origin item on their death certificate or for which Hispanic origin data were not of sufficient quality. See [appendix](#).

<sup>15</sup>1989 data.

<sup>16</sup>1990–93 data.

<sup>17</sup>Data are for American Indians/Alaska Natives 15 years and over in Indian Health Service areas only.

<sup>18</sup>Crude data from 1988–94.

<sup>19</sup>1988–94 data, 20 years and over.

<sup>20</sup>1988–91 data show 34% for 20–74 years, 33% for 20 years and over.

<sup>21</sup>1988–91 data show 32% for 20–74 years, 31% for 20 years and over.

<sup>22</sup>1988–91 data show 36% for 20–74 years, 35% for 20 years and over.

<sup>23</sup>1988–94 data. 1988–91 data show 21% for ages 12–19 years.

<sup>24</sup>1988–91 data.

<sup>25</sup>1988–91 data show 49% for 20–74 years, 49% for 20 years and over.

<sup>26</sup>Estimate derived from self-reported height and weight.

<sup>27</sup>1988–91 data show 36% for 20–74 years and 39% for 20 years and over.

<sup>28</sup>Among hearing-impaired children 4–6 years of age.

<sup>29</sup>Assuming full compliance, achieved through passage of the Americans with Disabilities Act of 1990.

<sup>30</sup>See text for [Priority Area 22](#) for a discussion of this objective (duplicate objective 22.4).

NOTE: Data may include revisions and, therefore, may differ from data previously published.

<i>Objective number</i>	<i>Data source</i>
17.1*, 17.1a–c	National Vital Statistics System, CDC, NCHS; National Health Interview Survey, CDC, NCHS.
17.2, 17.2a–c	National Health Interview Survey, CDC, NCHS.
17.3*, 17.3a	Baseline: National Health Interview Survey, CDC, NCHS; National Nursing Home Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.
17.3b	National Health Interview Survey, CDC, NCHS.
17.4	National Health Interview Survey, CDC, NCHS.
17.5	National Health Interview Survey, CDC, NCHS.
17.6, 17.6a	National Health Interview Survey, CDC, NCHS.
17.7, 17.7a	National Health Interview Survey, CDC, NCHS.
17.8*	Baseline: Metropolitan Atlanta Developmental Disabilities Study, CDC, NCEH. Update: Metropolitan Atlanta Developmental Disabilities Surveillance Program, CDC, NCEH.
17.9, 17.9a–d	National Vital Statistics System, CDC, NCHS.
17.10	For blindness: Massachusetts Blind Registry, Massachusetts Commission on the Blind; For perinatal mortality and congenital malfunctions: Clinical series and selected data; For ESRD: Health Care Financing Administration, Bureau of Data Management and Strategy; For amputation: Denominator: National Health Interview Survey, CDC, NCHS; Numerator: National Hospital Discharge Survey, CDC, NCHS.
17.10a	Health Care Financing Administration Bureau of Data Management and Strategy.
17.10b	Program Statistics, PHS, IHS.
17.10c	National Hospital Discharge Survey, CDC, NCHS.
17.11*, 17.11e	National Health Interview Survey, CDC, NCHS.
17.11a	Ambulatory Utilization Data, Indian Health Service.
17.11b–d	Hispanic Health and Nutrition Examination Survey, CDC, NCHS.
17.12*, 17.12a,b,f,g	National Health and Nutrition Examination Survey, CDC, NCHS.
17.12c, h	Data for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican-Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican-Americans: National Health and Nutrition Examination Survey, CDC, NCHS.
17.12d	Baseline: Indian Health Service, Office of Planning Evaluation and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
17.12e	National Health Interview Survey, CDC, NCHS.
17.13*, 17.13a	National Health Interview Survey, CDC, NCHS.
17.14a	1983–84 baseline: Halpern M. The impact of diabetes education in Michigan. <i>Diabetes</i> 38(2):151A, 1989. 1991 baseline and updates: National Health Interview Survey, CDC, NCHS.
17.14b	National Health Interview Survey, CDC, NCHS.

<i>Objective number</i>	<i>Data source</i>
17.15	Primary Care Provider Surveys, OASH, ODPHP.
17.16	1988 baseline: Annual Survey of Hearing Impaired Children and Youth, Commission on Education of the Deaf. 1991 baseline and updates: National Health Interview Survey, CDC, NCHS.
17.17	Primary Care Provider Surveys, OASH, ODPHP.
17.18	National Health Interview Survey, CDC, NCHS.
17.19	Baseline: Survey of Persons with Disability, International Center for the Disabled. Updates: Americans with Disabilities Act of 1990.
17.21	National Health Interview Survey, CDC, NCHS.
17.22*	Subcommittee on State and Community Health Statistics, NCVHS; CDC, NCHS; OPHS, ODPHP.
17.23	Baseline: National Health Interview Survey, CDC, NCHS; Update: National Health and Nutrition Examination Survey, CDC, NCHS.

\*Duplicate objective. See full text of objective following this table.

# Diabetes and Chronic Disabling Conditions Objectives

**17.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life (also referred to as quality-adjusted life years) is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 8.1 and 21.1

**17.1a\*:** Increase years of healthy life among blacks to at least 60 years.

Duplicate objectives: 8.1a and 21.1a

**17.1b\*:** Increase years of healthy life among Hispanics to at least 60 years.

Duplicate objectives: 8.1b and 21.1b

**17.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 more years of healthy life.

Duplicate objectives: 8.1c and 21.1c

**17.2:** Reduce to no more than 8 percent the proportion of people who experience a limitation in major activity due to chronic conditions.

*NOTE: Major activity refers to the usual activity for one's age-gender group whether it is working, keeping house, going to school, or living independently. Chronic conditions are defined as conditions that either (1) were first noticed 3 or more months ago, or (2) belong to a group of conditions such as heart disease and diabetes, which are considered chronic regardless of when they began.*

**17.2a:** Reduce to no more than 15 percent the proportion of low-income people (annual family income of less than \$10,000 in 1988) who experience a limitation in major activity due to chronic conditions.

**17.2b:** Reduce to no more than 11 percent the proportion of American Indians and Alaska Natives who experience a limitation

in major activity due to chronic conditions.

**17.2c:** Reduce to no more than 9 percent the proportion of blacks who experience a limitation in major activity due to chronic conditions.

**17.2d:** Reduce to no more than 10 percent the proportion of Puerto Ricans who experience a limitation in major activity due to chronic conditions.

**17.3\*:** Reduce to no more than 90 per 1,000 people the proportion of all people aged 65 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

*NOTE: Personal care activities are bathing, dressing, using the toilet, getting in and out of bed or chair, and eating.*

Duplicate objective: 1.13 and age-related objective for people aged 65 and older

**17.3a\*:** Reduce to no more than 325 per 1,000 people the proportion of all people aged 85 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

Duplicate objective: 1.13a

**17.3b\*:** Reduce to no more than 98 per 1,000 people the proportion of blacks aged 65 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

Duplicate objective: 1.13b

**17.4:** Reduce to no more than 10 percent the proportion of people with asthma who experience activity limitation.

*NOTE: Activity limitation refers to any self-reported limitation in activity attributed to asthma.*

**17.4a:** Reduce to no more than 19 percent the proportion of blacks with asthma who experience activity limitation.

**17.4b:** Reduce to no more than 22 percent the proportion of Puerto Ricans with asthma who experience activity limitation.

**17.5:** Reduce activity limitation due to chronic back conditions to a prevalence of no more than 19 per 1,000 people.

*NOTE: Chronic back conditions include intervertebral disk disorders, curvature of the back or spine, and other self-reported chronic back impairments such as permanent stiffness or deformity of the back or repeated trouble with the back. Activity limitation refers to any self-reported limitation in activity attributed to a chronic back condition.*

**17.6:** Reduce significant hearing impairment to a prevalence of no more than 82 per 1,000 people.

*NOTE: Hearing impairment covers the range of hearing deficits from mild loss in one ear to profound loss in both ears. Generally, inability to hear sounds at levels softer (less intense) than 20 decibels (dB) constitutes abnormal hearing. Significant hearing impairment is defined as having hearing thresholds for speech poorer than 25 dB. However, for this objective, self-reported hearing impairment (that is, deafness in one or both ears or any trouble hearing in one or both ears) will be used as a proxy measure for significant hearing impairment.*

**17.6a:** Reduce significant hearing impairment among people aged 45 and older to a prevalence of no more than 180 per 1,000.

**17.7:** Reduce significant visual impairment to a prevalence of no more than 30 per 1,000 people.

*NOTE: Significant visual impairment is generally defined as a permanent reduction in visual acuity and/or field of vision that is not correctable with eyeglasses or contact lenses. Severe visual impairment is defined as inability to read ordinary newsprint even with corrective lenses. For this objective, self-reported blindness in one or both eyes and other self-reported visual impairments (that is, any trouble seeing with one or both eyes even when wearing glasses or color blindness) will be used as a proxy measure for significant visual impairment.*

**17.7a:** Reduce significant visual impairment among people aged 65 and older to a prevalence of no more than 70 per 1,000.

**17.8\***: Reduce the prevalence of serious mental retardation among school-aged children to no more than 2 per 1,000 children.

*NOTE: Serious mental retardation is defined as an Intelligence Quotient (I.Q.) less than 50. This includes individuals defined by the American Association of Mental Retardation as profoundly retarded (I.Q. of 20 or less), severely retarded (I.Q. of 21–35), and moderately retarded (I.Q. of 36–50).*

Duplicate objective: 11.2

**17.9**: Reduce diabetes-related deaths to no more than 34 per 100,000.

*NOTE: Diabetes-related deaths refer to deaths from diabetes as an underlying or contributing cause.*

**17.9a**: Reduce diabetes-related deaths among blacks to no more than 58 per 100,000.

**17.9b**: Reduce diabetes-related deaths among American Indians and Alaska Natives to no more than 48 per 100,000.

**17.9c**: Reduce diabetes-related deaths among Mexican-Americans to no more than 50 per 100,000.

**17.9d**: Reduce diabetes-related deaths among Puerto Ricans to no more than 42 per 100,000.

**17.10**: Reduce the most severe complications of diabetes as follows:

Complications among people with diabetes:	2000 target
End-stage renal disease	1.4 per 1,000
Blindness	1.4 per 1,000
Lower extremity amputation	4.9 per 1,000
Perinatal mortality <sup>1</sup>	2 percent
Major congenital malformation	4 percent

<sup>1</sup>Among infants of women with established diabetes.

*NOTE: End-stage renal disease (ESRD) is defined as requiring dialysis or transplantation and is limited to ESRD due to diabetes. Blindness refers to blindness due to diabetic eye disease.*

**17.10a**: Reduce end-stage renal disease due to diabetes among black persons with diabetes to no more than 2 per 1,000.

**17.10b**: Reduce end-stage renal disease due to diabetes among American Indians and Alaska

Natives with diabetes to no more than 1.9 per 1,000.

**17.10c**: Reduce lower extremity amputations due to diabetes among blacks with diabetes to no more than 6.1 per 1,000.

**17.11\***: Reduce diabetes to an incidence of no more than 2.5 per 1,000 people and a prevalence of no more than 25 per 1,000 people.

Duplicate objective: 2.24

**17.11a\***: Reduce diabetes among American Indians and Alaska Natives to a prevalence of no more than 62 per 1,000.

Duplicate objective: 2.24a

**17.11b\***: Reduce diabetes among Puerto Ricans to a prevalence of no more than 49 per 1,000.

Duplicate objective: 2.24b

**17.11c\***: Reduce diabetes among Mexican-Americans to a prevalence of no more than 49 per 1,000.

Duplicate objective: 2.24c

**17.11d\***: Reduce diabetes among Cuban Americans to a prevalence of no more than 32 per 1,000.

Duplicate objective: 2.24d

**17.11e\***: Reduce diabetes among blacks to a prevalence of no more than 32 per 1,000.

Duplicate objective: 2.24e

**17.12\***: Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the modified age- and sex-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II). BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define*

*overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 1.2, 2.3, and 15.10

**17.12a\***: Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 2.3a, and 15.10a

**17.12b\***: Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 2.3b, and 15.10b

**17.12c\***: Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 2.3c, and 15.10c

**17.12d\***: Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 2.3d, and 15.10d

**17.12e\***: Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 2.3e, and 15.10e

**17.12f\***: Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 1.2f, 2.3f, and 15.10f

**17.12g\***: Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 1.2g, 2.3g, and 15.10g

**17.12h\***: Reduce overweight to a prevalence of no more than 35 percent among Mexican-American men.

Duplicate objectives: 1.2h, 2.3h, and 15.10h

**17.13\*:** Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light-to-moderate physical activity for at least 30 minutes per day.

*NOTE: Light-to-moderate physical activity requires sustained, rhythmic muscular movements, is at least equivalent to sustained walking, and is performed at less than 60 percent of maximum heart rate. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may include walking, swimming, cycling, dancing, gardening and yardwork, various domestic and occupational activities, and games and other childhood pursuits.*

Duplicate objectives: 1.3 and 15.11

**17.13a\*:** Increase to at least 25 percent the proportion of Hispanics aged 18 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day 5 or more times per week.

Duplicate objectives: 1.3a and 15.11a

**17.14:** Increase to at least 40 percent the proportion of people with chronic and disabling conditions who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14a:** Increase to at least 75 percent the proportion of people with diabetes who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14b:** Increase to at least 50 percent the proportion of people with asthma who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14c:** Increase to at least 75 percent the proportion of blacks with diabetes who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14d:** Increase to at least 75 percent the proportion of Hispanics with diabetes who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.15:** Increase to at least 80 percent the proportion of providers of primary care for children who routinely refer or screen infants and children for impairments of vision, hearing, speech and language, and assess other developmental milestones as part of well-child care.

**17.16:** Reduce the average age at which children with significant hearing impairment are identified to no more than 12 months.

**17.16a:** Reduce the average age at which black children with significant hearing impairment are identified to no more than 12 months.

**17.17:** Increase to at least 60 percent the proportion of providers of primary care for older adults who routinely evaluate people aged 65 and older for urinary incontinence and impairments of vision, hearing, cognition, and functional status.

**17.18:** Increase to at least 90 percent the proportion of perimenopausal women who have been counseled about the benefits and risks of estrogen replacement therapy (combined with progestin, when appropriate) for prevention of osteoporosis.

**17.19:** Increase to at least 75 percent the proportion of worksites with 50 or more employees that have a policy or program for the hiring of people with disabilities.

*NOTE: Mandated by the Americans with Disabilities Act.*

**17.20:** Increase to 50 the number of States that have service systems for children with or at risk of chronic and disabling conditions, as required by Public Law 101-239.

*NOTE: Children with or at risk of chronic and disabling conditions, often referred to as children with special health care needs, include children with psychosocial as well as physical problems. This population encompasses children with a wide variety of actual or potential disabling conditions, including*

*children with or at risk for cerebral palsy, mental retardation, sensory deprivation, developmental disabilities, spina bifida, hemophilia, other genetic disorders, and health-related educational and behavioral problems. Service systems for such children are organized networks of comprehensive, community-based, coordinated, and family-centered services.*

**17.21:** Reduce the prevalence of peptic ulcer disease to no more than 18 per 1,000 people aged 18 and older by preventing its recurrence.

**17.22\*:** Develop and implement a national process to identify significant gaps in the Nation's disease prevention and health promotion data, including data for racial and ethnic minorities, people with low incomes, and people with disabilities, and establish mechanisms to meet these needs.

*NOTE: Disease prevention and health promotion data include disease status, risk factors, and services receipt data. Public health problems include such issue areas as HIV infection, domestic violence, mental health, environmental health, occupational health, and disabling conditions.*

Duplicate objective: 22.4

**17.23:** Increase to 70 percent the proportion of people with diabetes who have an annual dilated eye exam.

\*Duplicate objective.

# Priority Area 18 HIV Infection

## Background

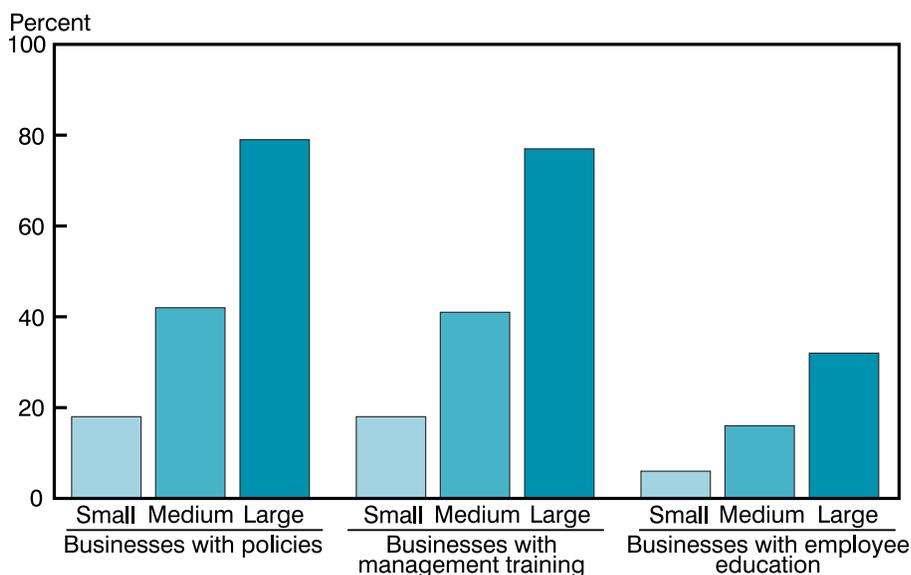
Over 500,000 people have been diagnosed with acquired immunodeficiency syndrome (AIDS) in the United States since the disease was first recognized (1). No treatment is available to cure AIDS, although antimicrobial treatments now available extend survival among those who are infected with the human immunodeficiency virus (HIV). With current knowledge, the HIV epidemic can only be controlled through primary preventive strategies, particularly through modifying personal behavioral risk factors. The objectives in the HIV priority area address sexual abstinence among adolescents, condom use among sexually active adolescents and unmarried adults, treatment for injecting drug users, use of uncontaminated injecting equipment among drug users who are not in treatment, HIV testing and counseling, workplace policies and employee education programs, and improving the safety of the country's blood supply.

## Data Summary

### Highlights

The estimated number of AIDS cases per 100,000 population by year of diagnosis (objective 18.1) decreased between 1994 and 1995 for the total population, blacks, and Hispanics; it rose among females. The number of cases diagnosed in 1995 among men who have sex with men and among injecting drug users also decreased compared with the number of cases in 1994. These decreases can be explained to a certain extent by the effect of the expanded 1993 AIDS surveillance case definition (2) (see [Data Issues](#)). The incidence rate of AIDS opportunistic infections, a measure that takes into account changes in the AIDS case definition, shows an 8-percent increase between 1992 and 1995 (2). The latest estimates of HIV infection (18.2) indicate that 650,000 to 900,000 Americans were infected with HIV in 1992, a rate of 310–420 per 100,000 population (3). The prevalence of HIV

**Figure 19. Proportion of businesses with comprehensive HIV/AIDS workplace programs: United States, 1995, for objective 18.16**



1995	
Businesses with policies:	
Small . . . . .	18
Medium . . . . .	42
Large . . . . .	79
Businesses with management training:	
Small . . . . .	18
Medium . . . . .	41
Large . . . . .	77
Businesses with employee education:	
Small . . . . .	6
Medium . . . . .	16
Large . . . . .	32

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Business Responds to AIDS Benchmark Survey.

infection among women delivering live-born infants (18.2c) was 160 per 100,000 in 1994; there has been no overall change in this rate from the 1989 baseline. Condom use by their partner at last sexual intercourse has increased among sexually active unmarried females between 1988 and 1995 from 19 percent to 25 percent (18.4). The estimated risk of transfusion-transmitted HIV infection (18.7) has dropped to 1 per 450,000–660,000 units of donated blood. In early 1992, Red Cross blood centers began screening blood with third-generation double antigen enzyme immunosorbent assays based on recombinant antigens for HIV-1 and

HIV-2. This new sensitive test decreased the window period between becoming HIV-infectious and having detectable antibodies.

### Summary of Progress

Data to assess progress are available for 13 of the 17 objectives in this priority area. Three objectives have met or exceeded the year 2000 targets. Objectives 18.7, to lower the risk of transfusion-transmitted HIV infection, and 18.8, to raise the percent of HIV-infected people who know their serostatus, as measured by the percent of HIV-positive tests for which people returned for counseling, have exceeded their targets. Objective 18.14, to extend

to all workplaces regulations to protect workers from exposure to bloodborne infections, was met with promulgation of the Occupational Safety and Health Administration's bloodborne pathogens standard in December 1991 (4). Data show progress toward the year 2000 targets for an additional 7 objectives (18.1, 18.2, 18.4–18.6, 18.13, and 18.15). Objective 18.1, which targets a slowing of the rise in the rate of AIDS cases, shows the number of AIDS cases diagnosed in 1995 per 100,000 population as below the rate in 1994. The 1992 data for objective 18.2 indicate that the prevalence of HIV infection has slowed considerably. Data from the 1995 National Survey of Family Growth (NSFG) update the 1988 baseline for objective 18.4, showing an increase in the proportion of sexually-active females whose partners used condoms at last sexual intercourse. Objectives 18.10 and 18.12 show trends that are moving away from the target. The trend is mixed for objective 18.3. New baselines were established for objective 18.11 for HIV and STD (sexually transmitted disease) education for students at colleges and universities. Data beyond baseline are not available for assessing the status of two objectives (18.9 and 18.16). Baseline data are not yet available for objective 18.17.

## Data Issues

### Definitions

In January 1993 a new AIDS case definition was implemented for the AIDS Surveillance System (5). The expanded definition adds pulmonary tuberculosis, recurrent pneumonia, and invasive cervical cancer to the list of diseases that indicate that AIDS has fully developed among HIV-infected people. In addition, the new definition includes HIV-infected people with a CD4 cell count below 200 cells per microliter of blood, regardless of whether those persons have opportunistic infections, neoplasms, or any other symptoms of HIV infection. These changes resulted in cases being diagnosed earlier in the course of the disease and effected a temporary increase in the number of cases reported after January 1, 1993. The expanded definition increased the number of cases diagnosed in 1992 and 1993 because it applied to cases diagnosed in earlier years if they were reported after the new

definition was implemented in 1993. The decline in 1994 and 1995 represents the continued but waning effect of the change in AIDS reporting criteria. In 1995, the Centers for Disease Control and Prevention (CDC) began to publish estimates of the incidence of cases of AIDS opportunistic illnesses (including HIV dementia and wasting syndrome) by year of diagnosis. This will improve comparability for trend purposes.

The National Household Survey on Drug Abuse (NHSDA) provides updates to monitor objective 18.5 on the proportion of injecting drug users in the past year who were enrolled in any drug abuse treatment program in the past year (6). For 1991 through 1993, persons defined as injecting drug users in the past year were those who used any drug with a needle for nonmedical reasons. For 1994, persons defined as injecting drug users in the past year were those who used a needle to inject cocaine, heroin, a stimulant, or an anabolic steroid in the past year. For 1995, persons defined as injecting drug users in the past year were those who used a needle to inject cocaine, heroin, or a stimulant in the past year. Enumeration of injecting drug users is difficult because of the illegality of the behavior. Therefore, the number of injecting drug users may be underestimated using this data source. In addition, the NHSDA will miss an unknown proportion of injecting drug users who are homeless, institutionalized, or difficult to locate. The NHSDA data are not comparable to the baseline measure, which was estimated from various sources.

Recent data on the proportion of injecting drug users not in treatment who use uncontaminated injecting equipment (objective 18.6) are available from the Cooperative Agreement for AIDS Community-Based Outreach and Intervention Research Program from the National Institute on Drug Abuse (NIDA). Baseline data were from a similar research project, the National AIDS Demonstration Research Program, also from NIDA. Data from both data sources are from selected cities and are not nationally representative. The measure to monitor this objective is the proportion of current injecting drug users who did not share needles during the last 30 days. Injecting drug users are newly recruited study participants who report injecting drugs during the past 30 days and whose drug-using behavior is

confirmed by observation of track marks or positive urine tests.

The data on counseling to prevent HIV and other STD's for objective 18.9 are from the Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on counseling refer to the proportion of providers who routinely delivered these services to 81–100 percent of their patients who needed the services.

### Data Source Descriptions

Data for objective 18.1 on the number of AIDS cases by year of diagnosis are available from the CDC AIDS Surveillance System and are adjusted for both delayed and incomplete reporting (2). Data on AIDS cases are more often published by year of report than by year of diagnosis. Approximately 20 percent of AIDS cases are reported more than a year after diagnosis. The estimated number of AIDS cases by year of diagnosis changes as new data become available because AIDS cases diagnosed in previous years continue to be reported and because the adjustment factor for delays in reporting changes as new data become available. The adjustment factor for underreporting is based on the assumption that 90 percent of all AIDS cases are eventually reported (7).

*Healthy People 2000* data from this surveillance system cover the 50 States and the District of Columbia only. The data usually published by the AIDS Surveillance System also include United States dependencies, possessions, and nations in free association with the United States.

Data for objective 18.16 are from the CDC-sponsored Worksite Benchmark Survey, which was a telephone survey of nongovernment worksites. Worksites were sampled because different worksites within the same company could have different sets of health promotion activities. Active methods (for example, classes) were counted as worksite health promotion activities; passive methods (for example, brochures) were not included (8,9).

## Data Comparability

Baseline and 1995 data for “all” females for objective 18.3 (adolescent postponement of sexual intercourse), for females 15–44 years and 15–19 years for objective 18.4 (condom use at last sexual intercourse), and for “all” females for objective 18.15 (adolescent abstinence) are from the NSFG. Baseline and 1995 data for all males for these objectives are from the National Survey of Adolescent Males (NSAM). Biennial tracking data from the Youth Risk Behavior Survey (YRBS) are also displayed for these objectives, but are not directly comparable to the baselines or the targets. The YRBS is a school-based survey and thus does not include teenagers who are not in school and who are potentially at higher risk of these behaviors (10). YRBS data, shown by age in this report, are published by grade only in other publications.

The update for objective 18.7 comes from Lackritz, et al., who obtained data from the American Red Cross on donations collected between January 1992 through December 1993 (11). The more sensitive screening enzyme immunosorbent assay antibody test introduced in 1992 is one possible reason for the estimated risk decreasing remarkably between 1990 and 1992–93.

## Proxy Measures

Objective 18.8 targets an increase in the proportion of HIV-infected people who know their serostatus. This objective is being measured by the percent of positive HIV tests for which tested people returned for counseling. Some people who were tested and returned for counseling may have had more than one test during the year.

## Data Availability

No national data are routinely available that directly measure HIV seroprevalence among the general population (objective 18.2). Estimates of the prevalence of HIV infection in the U.S. population as a whole are based on mathematical models using back calculation, a statistical method that estimates the number of prior HIV infections that would account for the number of AIDS cases that have subsequently occurred (2) as well as serostatus data from the Survey on Childbearing Women and from the National Health and Nutrition Examination Survey III (3).

Nationally representative estimates of HIV seroprevalence among high-risk groups are not available. Information on the proportion infected among men who have sex with men and injecting drug users has been obtained from seroprevalence studies conducted in clinical settings as part of a sentinel surveillance system conducted by CDC in collaboration with State and local health departments (12). The surveillance system covers various clinical settings in selected metropolitan areas. Seroprevalence estimates for men who have sex with men are based on anonymous surveys conducted in STD clinics. For injecting drug users, estimates are based on surveys among drug users entering treatment programs. Clients attending STD clinics and drug treatment programs are not representative of all persons with these high-risk behaviors.

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**Table 18. HIV infection objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>18.1</b>	<b>Slow the rise in incidence of AIDS cases (per 100,000)</b>	1989	17.0	20.9	25.2	33.1	32.8	29.8	28.6	43
	a. Men who have sex with men (number of cases)	1989	27,000	28,574	34,005	42,706	39,326	34,146	30,696	48,000
	b. Blacks	1989	44.4	59.0	73.0	100.8	107.8	102.9	100.5	136
	c. Hispanics	1989	34.9	33.1	39.9	51.5	53.7	49.4	47.1	76
	d. Females	1989	3.5	5.3	6.9	9.9	11.1	10.9	11.2	13
	e. Injecting drug users (number of cases)	1989	10,300	12,466	15,696	21,899	23,399	20,734	19,100	25,000
<b>18.2</b>	<b>Slow the rise in prevalence of HIV infection (per 100,000)</b>	1989	400	400	---	310–420	---	---	---	400
	a. Men who have sex with men <sup>1</sup>	1989	<sup>a</sup> 15,000–61,800	17,400–60,900	---	<sup>2</sup> 3,900–47,400	---	---	---	20,000
	b. Injecting drug users <sup>3</sup>	1989	<sup>a</sup> 0–48,200	0–49,300	---	<sup>2</sup> 600–52,900	---	---	---	40,000
	c. Females giving birth to live-born infants	1989	160	160	170	170	160	160	---	100
<b>18.3*</b>	<b>Adolescents engaging in sexual intercourse</b>									
	Adolescents 15 years									
	All females	1988	27%	---	---	---	---	---	22%	15%
	In-school females	...	---	35%	36%	---	37%	---	38%	...
	All males	1988	33%	---	---	---	---	---	27%	15%
	In-school males	...	---	48%	44%	---	45%	---	42%	...
	a. All black males	1988	69%	---	---	---	---	---	60%	15%
	In-school non-Hispanic black males	...	---	---	79%	---	82%	---	77%	...
	Adolescents 17 years									
	All females	1988	50%	---	---	---	---	---	51%	40%
	In-school females	...	---	62%	66%	---	66%	---	67%	...
	All males	1988	66%	---	---	---	---	---	---	40%
	In-school males	...	---	73%	68%	---	68%	---	65%	...
	b. All black males	1988	90%	---	---	---	---	---	---	40%
	In-school non-Hispanic black males	...	---	---	90%	---	92%	---	88%	...
	c. All black females (15–17 years)	1988	66%	---	---	---	---	---	<sup>4</sup> 48%	40%
	In-school non-Hispanic black females	...	---	---	84%	---	80%	---	75%	...
<b>18.4*</b>	<b>Condom use at last sexual intercourse</b>									
	Sexually active unmarried females 15–44 years (by their partners)	1988	19%	---	---	---	---	---	25%	50%
	a. Sexually active females 15–19 years (by their partners)	1988	26%	---	---	---	---	---	37%	60%
	Sexually active females 15–19 years in grades 9–12 (by their partners)	...	---	40%	38%	---	46%	---	49%	...
	b. Sexually active males 15–19 years	1988	57%	---	---	---	---	---	---	75%
	Sexually active males 15–19 years in grades 9–12	...	---	49%	54%	---	59%	---	61%	...
	c. Injecting drug users	1992	34%	...	...	...	---	---	---	75%
	d. Black females 15–44 years (by their partners)	1988	12.4%	---	---	---	---	---	<sup>4</sup> 25%	75%
<b>18.5</b>	<b>Injecting drug users in treatment</b>	1989	11%	---	28.7%	29.8%	45.9%	47.8%	34.1%	50%

**Table 18. HIV infection objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>18.6</b>	<b>Injecting drug users in treatment who did not share needles</b> . . . . .	1991	30.8%	...	...	---	<sup>5</sup> 57.7%	<sup>6</sup> 60.6%	<sup>7</sup> 60.0%	75%
<b>18.7</b>	<b>Risk of transfusion-transmitted HIV infection (per units of blood)</b> . . . . .	1989	1 per 40,000– 150,000	1 per 221,000	---	---	<sup>8</sup> 1 per 450,000– 660,000	---	---	1 per 250,000
<b>18.8</b>	<b>HIV-infected people who know their serostatus</b> Percent of positive HIV tests for which people returned for counseling . . . . .	1990	72.5%	...	---	---	---	---	83%	80%
<b>18.9*</b>	<b>Clinician counseling to prevent HIV and other sexually transmitted diseases</b> . . . . .	1987	10%	---	---	---	---	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients									
	a. Providers practicing in high incidence areas . . . . .	...	---	---	---	---	---	---	---	90%
	b. Family physicians . . . . .	1992	27%	...	...	...	---	---	---	75%
	c. Internists . . . . .	1992	30%	...	...	...	---	---	---	75%
	d. Nurse practitioners . . . . .	1992	50%	...	...	...	---	---	---	75%
	e. Obstetricians/gynecologists . . . . .	1992	46%	...	...	...	---	---	---	75%
	f. Pediatricians . . . . .	1992	46%	...	...	...	---	---	---	75%
	g. Mental health care providers . . . . .	...	---	---	---	---	---	---	---	75%
<b>18.10*</b>	<b>HIV and other STD education curricula</b> Schools offering at least one STD class . . . . .	1988	95%	---	---	---	---	---	---	95%
	Proportion of middle and senior high schools:									
	With HIV prevention in required courses . . . . .	...	---	---	---	---	---	86%	---	...
	With STD prevention required courses . . . . .	...	---	---	---	---	---	84%	---	...
<b>18.11*</b>	<b>HIV and STD education for students at colleges and universities</b> Students given:									
	AIDS or HIV infection prevention information . . . . .	1995	49.1%	...	...	...	...	...	...	90%
	STD prevention information . . . . .	1995	43.4%	...	...	...	...	...	...	90%
	Students taught about AIDS or HIV in a college class . . . . .	1995	41.4%	...	...	...	...	...	...	90%
<b>18.12</b>	<b>Outreach HIV programs for drug users (cities with populations greater than 100,000)</b> . . . . .	1991	35%	...	...	32%	---	---	---	90%
<b>18.13*</b>	<b>Clinic services for HIV and other sexually transmitted diseases</b> . . . . .	...	---	---	---	---	---	---	---	50%
	Family planning clinics . . . . .	1989	40%	---	---	---	---	---	---	...
	Title X funded family planning clinics									
	STD testing (excluding HIV). . . . .	...	---	---	---	---	---	95.1%	---	...
	STD counseling (excluding HIV) . . . . .	...	---	---	---	---	---	97.8%	---	...
	STD treatment (excluding HIV) . . . . .	...	---	---	---	---	---	92.7%	---	...
	Gonorrhea									
	Client testing <sup>9</sup> . . . . .	...	---	97%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	82%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	23%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	60%	---	---	---	---	---	...

**Table 18. HIV infection objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
	Partner treatment . . . . .	...	---	62%	---	---	---	---	---	...
	Syphilis									
	Client testing <sup>9</sup> . . . . .	...	---	86%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	48%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	29%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	57%	---	---	---	---	---	...
	Partner treatment . . . . .	...	---	40%	---	---	---	---	---	...
	Chlamydia									
	Client testing <sup>9</sup> . . . . .	...	---	66%	---	---	---	---	---	...
	Client treatment . . . . .	...	---	73%	---	---	---	---	---	...
	Partner notification <sup>10</sup> . . . . .	...	---	15%	---	---	---	---	---	...
	Partner testing . . . . .	...	---	29%	---	---	---	---	---	...
	Partner treatment . . . . .	...	---	50%	---	---	---	---	---	...
	HIV									
	Client pretest counseling . . . . .	...	---	66%	---	---	---	81.8%	---	...
	Client testing . . . . .	...	---	60%	---	---	---	73.5%	---	...
<b>18.14</b>	<b>Regulations to protect workers from occupational exposure to bloodborne infections, including HIV</b>									
	Proportion of workplaces . . . . .	1992	100%	100%	100%	100%	100%	100%	100%	100%
<b>18.15*</b>	<b>Adolescent abstinence from sexual intercourse for previous 3 months</b>									
	All sexually active females 15–17 years . . . . .	1988	23.6%	---	---	---	---	---	27%	40%
	In-school sexually active females 15–17 years . . . . .	...	---	24%	25%	---	25%	---	23%	...
	All sexually active males 15–17 years . . . . .	1988	33%	---	---	---	---	---	---	40%
	In-school sexually active males 15–17 years . . . . .	...	---	30%	36%	---	33%	---	34%	...
<b>18.16</b>	<b>Comprehensive HIV/AIDS workplace programs</b>									
	Proportion of businesses with policies, management training, and employee education:									
	Small businesses (15–49 employees) . . . . .	1995	2%	...	...	...	...	...	...	10%
	Medium businesses (50–749 employees) . . . . .	...	---	---	---	---	---	---	7%	...
	Large businesses (750 or more employees) . . . . .	1995	25%	...	...	...	...	...	...	50%
	Proportion of businesses with policies:									
	Small businesses (15–49 employees) . . . . .	...	---	---	---	---	---	---	18%	...
	Medium businesses (50–749 employees) . . . . .	...	---	---	---	---	---	---	42%	...
	Large businesses (750 or more employees) . . . . .	...	---	---	---	---	---	---	79%	...
	Proportion of businesses with management training:									
	Small businesses (15–49 employees) . . . . .	...	---	---	---	---	---	---	18%	...
	Medium businesses (50–749 employees) . . . . .	...	---	---	---	---	---	---	41%	...
	Large businesses (750 or more employees) . . . . .	...	---	---	---	---	---	---	77%	...
	Proportion of businesses with employee education:									
	Small businesses (15–49 employees) . . . . .	...	---	---	---	---	---	---	6%	...
	Medium businesses (50–749 employees) . . . . .	...	---	---	---	---	---	---	16%	...
	Large businesses (750 or more employees) . . . . .	...	---	---	---	---	---	---	32%	...

**Table 18. HIV infection objective status—Con.**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>18.17</b>	Federal government departments and agencies . . . . .	1995	80%	...	...	...	...	...	...	100%
	<b>Linkages between substance abuse treatment programs and primary care clinics</b>									
	Federally-funded primary care clinics . . . . .	...	---	---	---	---	---	---	---	40%
	Federally-funded substance abuse treatment programs . . . . .	...	---	---	---	---	---	---	---	40%

--- Data not available.  
 ... Category not applicable.  
<sup>a</sup>Baseline has been revised.  
<sup>1</sup>Range of clinic-specific HIV prevalences among men who have sex with men attending sexually transmitted disease clinics participating in CDC's National Serosurveillance Program.  
<sup>2</sup>1991–92 data.  
<sup>3</sup>Range of clinic-specific HIV prevalences among injecting drug users attending sexually transmitted disease clinics participating in CDC's National Serosurveillance Program.  
<sup>4</sup>Data are for non-Hispanic females.  
<sup>5</sup>Data are for January 1992 through April 1993.  
<sup>6</sup>Data are for May 1993 through December 1995.  
<sup>7</sup>Data are for January 1992 through July 1996.  
<sup>8</sup>1992–93 data.  
<sup>9</sup>Includes testing at initial visit, at annual visit, or if symptomatic.  
<sup>10</sup>By family planning clinic staff via telephone or mail.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
18.1, 18.1a–e	AIDS Surveillance System, CDC, NCHSTP.
18.2, 18.2a–c	Baseline and 1990 update: CDC, NCHSTP. 1992 Update for total population: Karon JM, et al. Prevalence of HIV infection in the United States, 1984 to 1992. JAMA 276(2):126–31. 1996.
18.3*	Baseline and update for all females and all black females: National Survey of Family Growth, CDC, NCHS. Baseline and update for all males and all black males: National Survey of Adolescent Males (NSAM), NIH, NICHD. 1990 data for all in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 data for all in-school females and males: Youth Risk Behavior Survey (YRBS), CDC, NCCDPHP.
18.4*, 18.4d	National Survey of Family Growth, CDC, NCHS.
18.4a	Baseline: National Survey of Family Growth, CDC, NCHS. 1990 update: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
18.4b	Baseline: National Survey of Adolescent Males, NIH, NICHD. 1990 update: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
18.4c	National AIDS Demonstration Research Program, NIH, NIDA.
18.5	Baseline: National Institute on Drug Abuse, NIH. Updates: National Household Survey on Drug Abuse, OAS, SAMHSA.
18.6	Baseline: National AIDS Demonstration Research Program, NIH, NIDA. Updates: Cooperative Agreement for AIDS Community-based Outreach/Intervention Research Program, NIH, NIDA.
18.7	Baseline: American Association of Blood Banks. 1990 update: Comprehensive Blood Donations Data Set, CDC, NCHSTP.

<i>Objective number</i>	<i>Data source</i>
18.8	1992–93 update: Lackritz EM, et al. Estimated risk of transmission of the human immunodeficiency virus by screened blood in the United States. <i>NEJM</i> 333(26):1721–5. 1995. HIV Counseling and Testing Data Sites System, CDC, NCHSTP.
18.9*	1987 baseline: Lewis CE and Freeman HE. Sexual history-taking and counseling practices of primary care physicians. <i>Western Journal of Medicine</i> 147: 165–7. 1987.
18.10*	1992 Baselines: Primary Care Provider Surveys, OASH, ODPHP. 1988 Baseline: AIDS education: Public school programs require more student information and teacher training. GAO. 1990. 1994 Baselines: School Health Policies and Programs Study, CDC, NCCDPHP.
18.11	College Youth Risk Behavior Survey, CDC, NCCDPHP.
18.12	CDC, NCPS.
18.13*	1989 Baseline: State Family Planning Directors. 1990 update: National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA. 1994 update: The Urban Institute. Family Planning Clinics: Current Status and recent Changes in Services, Clients, Staffing, and Income Sources. March 1994.
18.14	Occupational exposure to bloodborne pathogens; final rule (29 CFR 1910, 1030). <i>Federal Register</i> 56:64004–182. December 6, 1991.
18.15*	Baseline and update for all females: National Survey of Family Growth, CDC, NCHS. Baseline for all males: National Survey of Adolescent Males, NIH, NICHD. 1990 data for in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 data for in-school females and males: Youth Risk Behavior Survey, CDC, NCCDPHP.
18.16	Businesses: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP. Federal government: CDC.

\*Duplicate objective. See full text of objective following this table.

# HIV Infection Objectives

**18.1:** Confine annual incidence of diagnosed AIDS cases to no more than 43 per 100,000 population.

*NOTE: Cases are by year of diagnosis and are corrected for delays in reporting and underreporting.*

**18.1a:** Confine annual incidence of diagnosed AIDS cases among men who have sex with men to no more than 48,000 cases.

**18.1b:** Confine annual incidence of diagnosed AIDS cases among blacks to no more than 136 per 100,000 population.

**18.1c:** Confine annual incidence of diagnosed AIDS cases among Hispanics to no more than 76 per 100,000 population.

**18.1d:** Confine annual incidence of diagnosed AIDS cases among women to no more than 13 per 100,000 population.

**18.1e:** Confine annual incidence of diagnosed AIDS cases among injecting drug users to no more than 25,000.

**18.2:** Confine the prevalence of HIV infection to no more than 400 per 100,000 people.

**18.2a:** Confine the prevalence of HIV infection among men who have sex with men to no more than 20,000 per 100,000.

**18.2b:** Confine the prevalence of HIV infection among injecting drug users to no more than 40,000 per 100,000.

**18.2c:** Confine the prevalence of HIV infection among women giving birth to live-born infants to no more than 100 per 100,000.

**18.3\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 5.4 and 19.9

**18.3a\*:** Reduce the proportion of black males aged 15 years who have engaged in sexual intercourse to no more than 15 percent.

Duplicate objectives: 5.4a and 19.9a

**18.3b\*:** Reduce the proportion of black males aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 5.4b and 19.9b

**18.3c\*:** Reduce the proportion of black females aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 5.4c and 19.9c

**18.4\*:** Increase to at least 50 percent the proportion of sexually active, unmarried people who used a condom at last sexual intercourse.

Duplicate objective: 19.10

**18.4a\*:** Increase to at least 60 percent the proportion of sexually active, unmarried young women aged 15–19 whose partners used a condom at last sexual intercourse.

Duplicate objective: 19.10a

**18.4b\*:** Increase to at least 75 percent the proportion of sexually active, unmarried young men aged 15–19 who used a condom at last sexual intercourse.

Duplicate objective: 19.10b

**18.4c\*:** Increase to at least 75 percent the proportion of injecting drug users who used a condom at last sexual intercourse.

Duplicate objective: 19.10c

**18.4d\*:** Increase to at least 75 percent the proportion of black women aged 15–44 whose partners used a condom at last sexual intercourse.

Duplicate objective: 19.10d

**18.5:** Increase to at least 50 percent the estimated proportion of all injecting drug users who are in drug abuse treatment programs.

**18.6:** Increase to at least 75 percent the estimated proportion of active injecting drug users who use only new or properly decontaminated syringes, needles, and other drug paraphernalia (“works”).

**18.7:** Reduce to no more than 1 per 250,000 units of blood and blood components the risk of transfusion-transmitted HIV infection.

**18.8:** Increase to at least 80 percent the proportion of HIV-infected people who know their serostatus.

**18.9\*:** Increase to at least 75 percent the proportion of primary care and mental health care providers who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

*NOTE: Primary care providers include physicians, nurses, nurse practitioners, and physician assistants. Mental health care providers include psychiatrists, psychologists, social workers, psychiatric nurses, and mental health counselors. Areas of high AIDS and sexually transmitted disease incidence are cities and States with incidence rates of AIDS cases, HIV seroprevalence, gonorrhea, or syphilis that are at least 25 percent above the national average.*

Duplicate objective: 19.14

**18.9a\*:** Increase to at least 90 percent the proportion of primary care and mental health care providers who practice in areas of high AIDS and sexually transmitted disease incidence, who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14a

**18.9b\*:** Increase to at least 75 percent the proportion of family physicians who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14b

**18.9c\*:** Increase to at least 75 percent the proportion of internists who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14c

**18.9d\*:** Increase to at least 75 percent the proportion of nurse practitioners who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14d

**18.9e\*:** Increase to at least 75 percent the proportion of obstetricians/gynecologists who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14e

**18.9f\*:** Increase to at least 75 percent the proportion of pediatricians who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14f

**18.9g\*:** Increase to at least 75 percent the proportion of mental health care providers who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14g

**18.10\*:** Increase to at least 95 percent the proportion of schools that have appropriate HIV and other STD education curricula for students in 4th–12th grade, preferably as part of comprehensive school health education, based upon scientific information that includes the way HIV and other STDs are prevented and transmitted.

Duplicate objective: 19.12

**18.11\*:** Increase to at least 90 percent the proportion of students who received HIV and other STD information, education, or counseling on their college or university campus.

Duplicate objective: 19.17

**18.12:** Increase to at least 90 percent the proportion of cities with populations over 100,000 that have outreach programs to contact drug users (particularly injecting drug users) to deliver HIV-risk-reduction messages.

*NOTE: HIV-risk-reduction messages include messages about reducing or eliminating drug use, entering drug treatment, disinfection of injection equipment if still injecting drugs, and safer sex practices.*

**18.13\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that provide on site primary prevention and provide or refer for secondary

prevention services for HIV infection and bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia) to high-risk individuals and their sex or needle-sharing partners.

Duplicate objectives: 5.11 and 19.11

**18.14:** Extend to all facilities where workers are at risk for occupational transmission of HIV regulations to protect workers from exposure to blood borne infections, including HIV infection.

**18.15\*:** Increase to at least 40 percent the proportion of ever sexually active adolescents aged 17 and younger who have not had sexual intercourse for the previous 3 months.

Duplicate objectives: 5.5 and 19.16

**18.16:** Increase to at least 50 percent the proportion of large businesses and to 10 percent the proportion of small businesses that implemented a comprehensive HIV/AIDS workplace program. Increase to 100 percent the proportion of Federal Government departments and agencies that implemented a comprehensive HIV/AIDS workplace program.

*NOTE: An HIV/AIDS workplace program consists of (1) an HIV/AIDS written policy, (2) managerial training about the policy and its application, and (3) HIV/AIDS employee education.*

**18.17:** Increase to at least 40 percent the number of federally funded primary care clinics that have formal established linkages with substance abuse treatment programs and increase to at least 40 percent the number of federally funded substance abuse treatment programs that have formal established linkages with primary care clinics.

\*Duplicate objective.

# Priority Area 19 Sexually Transmitted Diseases

## Background

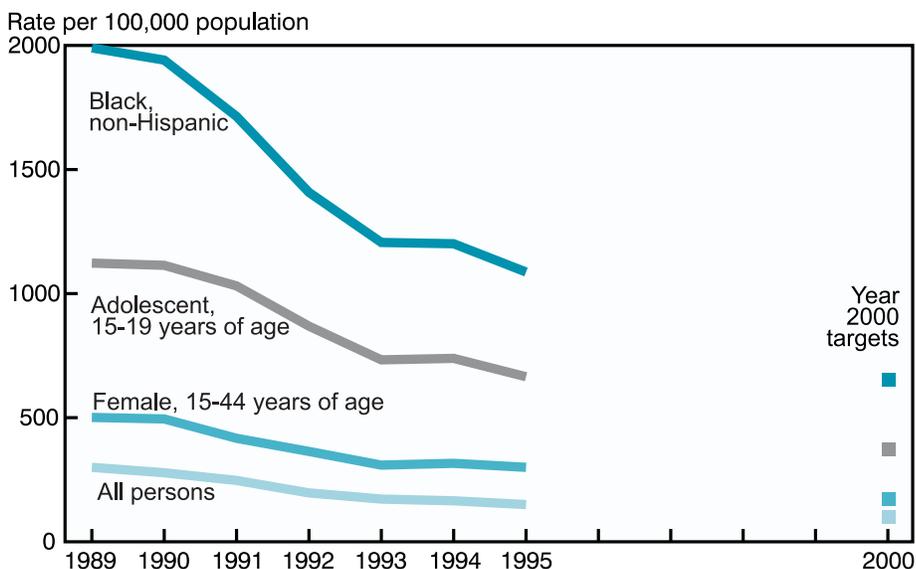
Sexually transmitted diseases (STD's) are the most commonly reported diseases in the United States, and affect all population groups. More than 12 million Americans are infected with STD's each year. Adolescents and young adults are at greatest risk of acquiring an STD. Each year approximately 3 million teenagers acquire an STD and many will develop long-term complications as a result (1). By age 21, approximately one of every five young people has received treatment for an STD (2). Women and children suffer a disproportionate amount of the sexually transmitted disease burden, with pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer associated with human papillomavirus, fetal and infant deaths, and congenital defects among the most serious complications. Ethnic and racial minorities, particularly black and Hispanic people, shoulder a disproportionate share of the sexually transmitted disease burden as well, experiencing higher rates of disease and disability than the population as a whole. Many sexually transmitted diseases such as syphilis, gonococcal infections, and chlamydia, facilitate transmission of HIV infection (1).

## Data Summary

### Highlights

Progress continues to be made toward achieving the sexually transmitted disease objectives. In 1995, 392,848 cases of gonorrhea were reported in the United States (objective 19.1). These data indicate that the incidence of gonorrhea infection in the general population continues to decrease. A downward trend is also evident among targeted population subgroups (blacks, adolescents, and women of childbearing age). While the rates among black people declined from 1,990 per 100,000 in 1989 to 1,087 in 1995, the rate remains about seven times the rate for the total population. Progress has been made in reducing primary and secondary (P&S) syphilis

**Figure 20. Incidence of gonorrhea: United States, 1989–95, and year 2000 targets for objective 19.1**



	1989	1990	1991	1992	1993	1994	1995	Year 2000 target
All persons . . . . .	300	278	247	197	172	165	150	100
Black (non-Hispanic) . . . . .	1,990	1,941	1,714	1,408	1,206	1,201	1,087	650
Adolescent 15–19 years . . . . .	1,123	1,114	1,031	869	733	739	665	375
Female 15–44 years . . . . .	501	495	417	364	309	316	300	175

SOURCE: Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention, Sexually Transmitted Disease Surveillance System.

(objective 19.3); the 16,500 cases of P&S syphilis reported in 1995 were the fewest cases reported in the United States since 1960 (3). Syphilis rates for non-Hispanic black people are also declining, although the 46 cases per 100,000 population was nearly 60 times greater than the rate for non-Hispanic whites in 1995. Congenital syphilis cases (19.4), hospitalizations for pelvic inflammatory disease among females 15–44 years of age (19.6), and sexually transmitted hepatitis B cases (19.7) are also declining. Condom use at last sexual intercourse among sexually active teenagers (19.10) is increasing, and the percent of adolescents 15 years of age having sexual intercourse (19.9) is declining.

### Summary of Progress

Data to assess trends are available for 13 of 17 objectives in this priority area. Progress has been made toward targets for nine objectives (19.1–19.3, 19.5, 19.6, 19.8, 19.10, 19.11, and

19.16), and objectives 19.4 and 19.7 have exceeded the year 2000 targets. Recent data for objective 19.12 indicate that the trend is going in the opposite direction of the target. The trend is mixed for objective 19.9. Data subsequent to baseline measures are unavailable for four objectives (19.12–19.15). Baseline data were obtained for objective 19.17 (HIV and STD education for students at colleges and universities).

### Data Issues

### Definitions

In January 1988, the Centers for Disease Control and Prevention (CDC) issued new guidelines for classifying and reporting cases of congenital syphilis (19.4). The new surveillance case definition is more useful for public health surveillance; the previous definition involved physical examination, laboratory and radiographic

results, and followup serological data (3). Followup information was often difficult to obtain and led to delayed and incomplete reporting. In addition, the clinical criteria excluded stillbirths to mothers with untreated syphilis. The new case definition includes criteria for presumptive and confirmed cases of syphilis in infants and children and includes stillbirths. It allows classification for public health surveillance purposes soon after delivery. A presumptive case includes all infants whose mothers have untreated or inadequately treated syphilis at delivery (4). The number of cases increased dramatically during 1989–91, partly as a result of the new case definition. The case definition was fully implemented in all States on January 1, 1992; trends after this point more accurately reflect changes in the true incidence of congenital syphilis.

The data on counseling to prevent HIV and other STD's for objective 19.14 are from the Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on counseling refer to the proportion of providers who routinely delivered these services to 81–100 percent of their patients who needed the services.

### Comparability of Data Sources

Estimates of chlamydia prevalence among females 15–24 years (19.2) are obtained from the Sexually Transmitted Disease Surveillance System. Surveillance of chlamydial infections is incomplete in many areas of the United States; however, surveillance is improving and in 1994, chlamydia became a nationally notifiable condition (3). Baseline and update data differ in data collection methodology, which has improved, and in the number of regions from which rates are derived, which has increased.

Baseline and 1995 data for “all” females for objective 19.9 (adolescent postponement of sexual intercourse), for females 15–44 years and 15–19 years for objective 19.10 (condom use at last sexual intercourse), and for “all” females for objective 19.16 (adolescent abstinence) are from the National Survey of Family Growth (NSFG).

Baseline and 1995 data for all males for these objectives are from the National Survey of Adolescent Males (NSAM). Biennial tracking data from the Youth Risk Behavior Survey (YRBS) are also displayed for these objectives, but are not directly comparable to the baselines or the targets. The YRBS is a school-based survey and thus does not include teenagers who are not in school and who are potentially at higher risk of these behaviors (5). YRBS data, shown by age in this report, are published by grade only in other publications.

### References

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5. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend schools: United States, 1992. *MMWR* 43:129–32. 1994.

**Table 19. Sexually transmitted diseases objective status**

Objective	Baseline									Target
	year	Baseline	1990	1991	1992	1993	1994	1995	2000	
<b>19.1 Gonorrhea (per 100,000)</b> . . . . .	1989	300	278	247	197	172	165	150	100	
a. Blacks (non-Hispanic) . . . . .	1989	1,990	1,941	1,714	1,408	1,206	1,201	1,087	650	
b. Adolescents 15–19 years . . . . .	1989	1,123	1,114	1,031	869	733	739	665	375	
c. Females 15–44 years . . . . .	1989	501	495	417	364	309	316	300	175	
<b>19.2 Chlamydia prevalence among females 15–24 years</b>										
Females 15–19 years . . . . .	1988	12.2%	---	---	---	---	---	6.7%	5%	
Females 20–24 years . . . . .	1988	8.5%	---	---	---	---	---	4.2%	5%	
<b>19.3 Primary and secondary syphilis (per 100,000)</b> . . . . .	1989	18.1	20.3	17.2	13.4	10.3	7.9	6.3	4	
a. Blacks . . . . .	1989	118	143	122	97	76	59	46	30	
<b>19.4 Congenital syphilis (per 100,000 live births)</b> . . . . .	1990	91.0	...	107.3	94.7	80.7	55.6	39.0	40	
a. Blacks . . . . .	1992	<sup>a</sup> 417.8	...	...	...	357.3	230.6	173.2	175	
b. Hispanics . . . . .	1992	<sup>a</sup> 134.6	...	...	...	103.8	78.6	55.2	50	
<b>19.5 Annual number of first time consultations<sup>1</sup></b>										
Genital herpes . . . . .	1988	163,000	<sup>2</sup> 172,000	235,000	139,000	172,000	142,000	160,000	138,500	
Genital warts . . . . .	1988	290,000	<sup>2</sup> 275,000	282,000	218,000	167,000	238,000	253,000	246,500	
<b>19.6 Pelvic inflammatory disease</b>										
Hospitalizations per 100,000 females 15–44 years . . . . .	1988	311	261	233	212	196	177	162	100	
Initial visits to physicians (number of visits) <sup>1</sup> . . . . .	1988	430,800	357,522	376,540	334,793	386,860	312,000	245,000	290,000	
Hospitalizations per 100,000 females										
a. Blacks 15–44 years . . . . .	1988	655	567	523	539	399	378	296	150	
b. Adolescents 15–19 years . . . . .	1988	342	279	239	205	159	184	141	110	
<b>19.7* Sexually transmitted Hepatitis B (number of cases)</b> . . . . .	1987	47,593	47,881	58,393	52,882	35,849	35,077	<sup>3</sup> 29,446	30,500	
<b>19.8 Repeat gonorrhea infection</b> . . . . .	1987	20%	---	---	16.7%	16.1%	13.8%	<sup>4</sup> 14.9%	15%	
a. Blacks . . . . .	1992	21.3%	...	...	...	19.9%	15.6%	<sup>5</sup> 16.8%	17%	
<b>19.9* Adolescents engaging in sexual intercourse</b>										
Adolescents 15 years										
All females . . . . .	1988	27%	---	---	---	---	---	22%	15%	
In-school females . . . . .	...	---	35%	36%	---	37%	---	38%	...	
All males . . . . .	1988	33%	---	---	---	---	---	27%	15%	
In-school males . . . . .	...	---	48%	44%	---	45%	---	42%	...	
a. All black males . . . . .	1988	69%	---	---	---	---	---	60%	15%	
In-school non-Hispanic black males . . . . .	...	---	---	79%	---	82%	---	77%	...	
Adolescents 17 years										
All females . . . . .	1988	50%	---	---	---	---	---	51%	40%	
In-school females . . . . .	...	---	62%	66%	---	66%	---	67%	...	
All males . . . . .	1988	66%	---	---	---	---	---	---	40%	
In-school males . . . . .	...	---	73%	68%	---	68%	---	65%	...	
b. All black males . . . . .	1988	90%	---	---	---	---	---	---	40%	
In-school non-Hispanic black males . . . . .	...	---	---	90%	---	92%	---	88%	...	
c. All black females (15–17 years) . . . . .	1988	66%	---	---	---	---	---	<sup>6</sup> 48%	40%	
In-school non-Hispanic black females . . . . .	...	---	---	84%	---	80%	---	75%	...	
<b>19.10* Condom use at last sexual intercourse</b>										
Sexually-active unmarried females 15–44 years (by their partners) . . . . .	1988	19%	---	---	---	---	---	25%	50%	

**Table 19. Sexually transmitted diseases objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
a. Sexually-active females 15–19 years (by their partners) . . . . .	1988	26%	---	---	---	---	---	37%	60%
Sexually-active females 15–19 years in grades 9–12 (by their partners) . . . . .	...	---	40%	38%	---	46%	---	49%	...
b. Sexually-active males 15–19 years . . . . .	1988	57%	---	---	---	---	---	---	75%
Sexually-active males 15–19 years in grades 9–12 . . . . .	...	---	49%	54%	---	59%	---	61%	...
c. Injecting drug users . . . . .	1992	34%	...	...	...	---	---	---	75%
d. Black females 15–44 years (by their partners) . . . . .	1988	12.4%	---	---	---	---	---	425%	75%
<b>19.11* Clinic services for HIV and other sexually transmitted diseases . . . . .</b>	...	---	---	---	---	---	---	---	50%
Family planning clinics . . . . .	1989	40%	---	---	---	---	---	---	...
Title X funded family planning clinics									
STD testing (excluding HIV) . . . . .	...	---	---	---	---	---	95.1%	---	...
STD counseling (excluding HIV) . . . . .	...	---	---	---	---	---	97.8%	---	...
STD treatment (excluding HIV) . . . . .	...	---	---	---	---	---	92.7%	---	...
Gonorrhea									
Client testing <sup>7</sup> . . . . .	...	---	97%	---	---	---	---	---	...
Client treatment . . . . .	...	---	82%	---	---	---	---	---	...
Partner notification <sup>8</sup> . . . . .	...	---	23%	---	---	---	---	---	...
Partner testing . . . . .	...	---	60%	---	---	---	---	---	...
Partner treatment . . . . .	...	---	62%	---	---	---	---	---	...
Syphilis									
Client testing <sup>7</sup> . . . . .	...	---	86%	---	---	---	---	---	...
Client treatment . . . . .	...	---	48%	---	---	---	---	---	...
Partner notification <sup>8</sup> . . . . .	...	---	29%	---	---	---	---	---	...
Partner testing . . . . .	...	---	57%	---	---	---	---	---	...
Partner treatment . . . . .	...	---	40%	---	---	---	---	---	...
Chlamydia									
Client testing <sup>7</sup> . . . . .	...	---	66%	---	---	---	---	---	...
Client treatment . . . . .	...	---	73%	---	---	---	---	---	...
Partner notification <sup>8</sup> . . . . .	...	---	15%	---	---	---	---	---	...
Partner testing . . . . .	...	---	29%	---	---	---	---	---	...
Partner treatment . . . . .	...	---	50%	---	---	---	---	---	...
HIV									
Client pretest counseling . . . . .	...	---	66%	---	---	---	81.8%	---	...
Client testing . . . . .	...	---	60%	---	---	---	73.5%	---	...
<b>19.12* HIV and other STD education curricula in schools . . . . .</b>	1988	95%	---	---	---	---	---	---	95%
Proportion of middle and senior high schools									
HIV prevention included in required courses . . . . .	...	---	---	---	---	---	86%	---	...
STD prevention included in required courses . . . . .	...	---	---	---	---	---	84%	---	...
<b>19.13 Correct management of sexually transmitted disease cases by primary care providers . . . . .</b>	1988	70%	---	---	---	---	---	---	90%

**Table 19. Sexually transmitted diseases objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>19.14* Clinician counseling to prevent HIV and other sexually transmitted diseases</b>	1987	10%	---	---	---	---	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients									
a. Providers practicing in high incidence areas	...	---	---	---	---	---	---	---	90%
b. Family physicians	1992	27%	...	...	...	---	---	---	75%
c. Internists	1992	30%	...	...	...	---	---	---	75%
d. Nurse practitioners	1992	50%	...	...	...	---	---	---	75%
e. Obstetricians/gynecologists	1992	46%	...	...	...	---	---	---	75%
f. Pediatricians	1992	46%	...	...	...	---	---	---	75%
g. Mental health care providers	...	---	---	---	---	---	---	---	75%
<b>19.15 Partner notification of exposure to sexually transmitted diseases</b>									
Patients with bacterial sexually transmitted diseases	1988	20%	---	---	---	---	---	---	50%
<b>19.16* Adolescent abstinence from sexual intercourse for previous 3 months</b>									
All sexually active females 15–17 years	1988	23.6%	---	---	---	---	---	27%	40%
In-school sexually active females 15–17 years	...	---	24%	25%	---	25%	---	23%	...
All sexually active males 15–17 years	1988	33%	---	---	---	---	---	---	40%
In-school sexually active males 15–17 years	...	---	30%	36%	---	33%	---	34%	...
<b>19.17* HIV and STD education for students at colleges and universities</b>									
Students given:									
AIDS or HIV infection prevention information	1995	49.1%	...	...	...	...	...	...	90%
STD prevention information	1995	43.4%	...	...	...	...	...	...	90%
Students taught about AIDS or HIV in a college class	1995	41.4%	...	...	...	...	...	...	90%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>As measured by first-time visits to physicians' offices.

<sup>2</sup>1989 data.

<sup>3</sup>Data are provisional.

<sup>4</sup>1996 data show 15.7%.

<sup>5</sup>1996 data show 17.8%.

<sup>6</sup>Data are for non-Hispanic black females.

<sup>7</sup>Includes testing at initial visit, at annual visit, or if symptomatic.

<sup>8</sup>By family planning clinic staff via telephone or mail.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
19.1, 19a–c	Sexually Transmitted Disease Surveillance System, CDC, NCHSTP.
19.2	Sexually Transmitted Disease Surveillance System, CDC, NCHSTP.
19.3, 19.3a	Sexually Transmitted Disease Surveillance System, CDC, NCHSTP.
19.4	Sexually Transmitted Disease Surveillance System, CDC, NCHSTP.
19.5	National Disease and Therapeutic Index, IMS America, Ltd.
19.6, 19.6a–b	For hospitalizations, National Hospital Discharge Survey, CDC, NCHS. For number of visits, National Disease and Therapeutic Index, IMS America, Ltd.

<i>Objective number</i>	<i>Data source</i>
19.7*	Viral Hepatitis Surveillance System, CDC, NCID.
19.8	Gonococcal Isolate Surveillance Project, CDC, NCHSTP.
19.9*	Baseline and update for all females and all black females: National Survey of Family Growth, CDC, NCHS. Baseline and update for all males and all black males: National Survey of Adolescent Males (NSAM), NIH, NICHD. 1990 Data for all in-school females and males: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Data for all in-school females and males: Youth Risk Behavior Survey (YRBS), CDC, NCCDPHP.
19.10*, 19.10d	National Survey of Family Growth, CDC, NCHS.
19.10a	Baseline: National Survey of Family Growth, CDC, NCHS. 1990 Update: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
19.10b	Baseline: National Survey of Adolescent Males, NIH, NICHD. 1990 Update: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
19.10c	National AIDS Demonstration Research Program, NIH, NIDA.
19.11*	Baseline: State Family Planning Directors. 1990 Updates: National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA. 1994 Updates: The Urban Institute. Family planning clinics: Current status and recent changes in services, clients, staffing, and income sources. March 1994.
19.12*	1988 Data: AIDS education: Public school programs require more student information and teacher training, GAO. 1990. 1994 Baseline: School Health Policies and Programs Study, CDC, NCCDPHP.
19.13	National Disease and Therapeutic Index, IMS America, Ltd.
19.14*	1987 Baseline: Sexual history-taking and counseling practices of primary care physicians, Lewis CE and Freeman HE. Western Journal of Medicine, 147: 165–7. 1987. 1992 Baselines: Primary Care Provider Surveys, OASH, ODPHP.
19.15	Sexually Transmitted Disease Surveillance System, CDC, NCPS.
19.16*	Baseline and update for all females: National Survey of Family Growth, CDC, NCHS; Baseline for all males: National Survey of Adolescent Males, NIH, NICHD. Data for in-school males and females for 1990: National School-based Youth Risk Behavior Survey, CDC, NCCDPHP. 1991–95 Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
19.17*	College Youth Risk Behavior Survey, CDC, NCCDPHP.

\*Duplicate objective. See full text of objective following this table.

# Sexually Transmitted Diseases Objectives

**19.1:** Reduce gonorrhea to an incidence of no more than 100 cases per 100,000 people.

**19.1a:** Reduce gonorrhea among blacks to an incidence of no more than 650 cases per 100,000.

**19.1b:** Reduce gonorrhea among adolescents aged 15–19 to an incidence of no more than 375 cases per 100,000.

**19.1c:** Reduce gonorrhea among women aged 15–44 to an incidence of no more than 175 cases per 100,000.

**19.2:** Reduce the prevalence of Chlamydia trachomatis infections among young women (under the age of 25 years) to no more than 5 percent.

*NOTE: As measured by a decrease in the prevalence of chlamydia infection among family planning clients*

**19.3:** Reduce primary and secondary syphilis to an incidence of no more than 4 cases per 100,000 people.

**19.3a:** Reduce primary and secondary syphilis among blacks to an incidence of no more than 30 cases per 100,000.

**19.4:** Reduce congenital syphilis to an incidence of no more than 40 cases per 100,000 live births.

**19.4a:** Reduce congenital syphilis among blacks to an incidence of no more than 175 cases per 100,000 live births.

**19.4b:** Reduce congenital syphilis among Hispanics to an incidence of no more than 50 cases per 100,000 live births.

**19.5:** Reduce genital herpes and genital warts, as measured by a reduction to 138,500 and 246,500, respectively, in the annual number of first-time consultations with a physician for the conditions.

**19.6:** Reduce the incidence of pelvic inflammatory disease, as measured by a reduction in hospitalizations for pelvic inflammatory disease, to no more than 100 per 100,000 women aged 15–44 and a reduction in the number of initial

visits to physicians for pelvic inflammatory disease to no more than 290,000.

**19.6a:** Reduce the incidence of pelvic inflammatory disease among blacks, as measured by a reduction in hospitalizations for pelvic inflammatory disease, to no more than 150 per 100,000 women aged 15–44.

**19.6b:** Reduce the incidence of pelvic inflammatory disease among adolescents, as measured by a reduction in hospitalizations for pelvic inflammatory disease, to no more than 110 per 100,000 females aged 15–19.

**19.7\*:** Reduce sexually transmitted hepatitis B infection to no more than 30,500 cases.

Duplicate objectives: 20.03b and 20.03c, combined

**19.8:** Reduce the rate of repeat gonorrhea infection to no more than 15 percent within the previous year.

*NOTE: As measured by a reduction in the proportion of gonorrhea patients who, within the previous year, were treated for a separate case of gonorrhea.*

**19.8a:** Reduce the rate of repeat gonorrhea infection among blacks to no more than 17 percent within the previous year.

*NOTE: Proportion of male gonorrhea patients with one or more gonorrhea infections within the previous 12 months.*

**19.9\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 5.4 and 18.3

**19.9a\*:** Reduce the proportion of black males aged 15 years who have engaged in sexual intercourse to no more than 15 percent.

Duplicate objectives: 5.4a and 18.3a

**19.9b\*:** Reduce the proportion of black males aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 5.4b and 18.3b

**19.9c\*:** Reduce the proportion of black females aged 17 years who have engaged in sexual intercourse to no more than 40 percent.

Duplicate objectives: 5.4c and 18.3c

**19.10\*:** Increase to at least 50 percent the proportion of sexually active, unmarried people who used a condom at last sexual intercourse.

Duplicate objective: 18.4

**19.10a\*:** Increase to at least 60 percent the proportion of sexually active, unmarried young women aged 15–19 whose partner used a condom at last sexual intercourse.

Duplicate objective: 18.4a

**19.10b\*:** Increase to at least 75 percent the proportion of sexually active, unmarried young men aged 15–19 who used a condom at last sexual intercourse.

Duplicate objective: 18.4b

**19.10c\*:** Increase to at least 60 percent the proportion of intravenous drug users who used a condom at last sexual intercourse.

Duplicate objective: 18.4c

**19.10d\*:** Increase to at least 75 percent the proportion of black women aged 15–44 whose partner used a condom at last sexual intercourse.

Duplicate objective: 18.4d

**19.11\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that provide on site primary prevention and provide or refer for secondary prevention services for HIV infection and bacterial sexually transmitted diseases (gonorrhea, syphilis, and Chlamydia) to high-risk individuals and their sex or needle-sharing partners.

Duplicate objectives: 5.11 and 18.13

**19.12\*:** Increase to at least 95 percent the proportion of schools that have appropriate HIV and other STD education curricula for students in 4th–12th grade, preferably as part of comprehensive school health education, based upon scientific information that

includes the way HIV and other STDs are prevented and transmitted. Duplicate objective: 18.10

**19.13:** Increase to at least 90 percent the proportion of primary care providers treating patients with sexually transmitted diseases who correctly manage cases, as measured by their use of appropriate types and amounts of therapy.

**19.14\*:** Increase to at least 75 percent the proportion of primary care and mental health care providers who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

*NOTE: Primary care providers include physicians, nurses, nurse practitioners, and physician assistants. Mental health care providers include psychiatrists, psychologists, social workers, psychiatric nurses, and mental health counselors. Areas of high AIDS and sexually transmitted disease incidence are cities and States with incidence rates of AIDS cases, HIV seroprevalence, gonorrhea, or syphilis that are at least 25 percent above the national average.*

Duplicate objective: 18.9

**19.14a\*:** Increase to at least 90 percent the proportion of primary care and mental health care providers who practice in areas of high AIDS and sexually transmitted disease incidence who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9a

**19.14b\*:** Increase to at least 75 percent the proportion of family physicians who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9b

**19.14c\*:** Increase to at least 75 percent the proportion of internists who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9c

**19.14d\*:** Increase to at least 75 percent the proportion of nurse practitioners who provide

appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9d

**19.14e\*:** Increase to at least 75 percent the proportion of obstetricians/gynecologists who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9e

**19.14f\*:** Increase to at least 75 percent the proportion of pediatricians who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9f

**19.14g\*:** Increase to at least 75 percent the proportion of mental health care providers who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9g

**19.15:** Increase to at least 50 percent the proportion of all patients with bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia) who are offered provider referral services.

*NOTE: Provider referral (previously called contact tracing) is the process whereby health department personnel directly notify the sexual partners of infected individuals of their exposure to an infected individual for the purpose of education, counseling, and referral to health care services.*

**19.16\*:** Increase to at least 40 percent the proportion of ever sexually active adolescents aged 17 and younger who have not had sexual intercourse for the previous 3 months.

Duplicate objective: 5.5 and 18.15

**19.17\*:** Increase to at least 90 percent the proportion of students who received HIV and other STD information, education, or counseling on their college or university campus.

Duplicate objective: 18.11

\*Duplicate objective.

# Priority Area 20 Immunization and Infectious Diseases

## Background

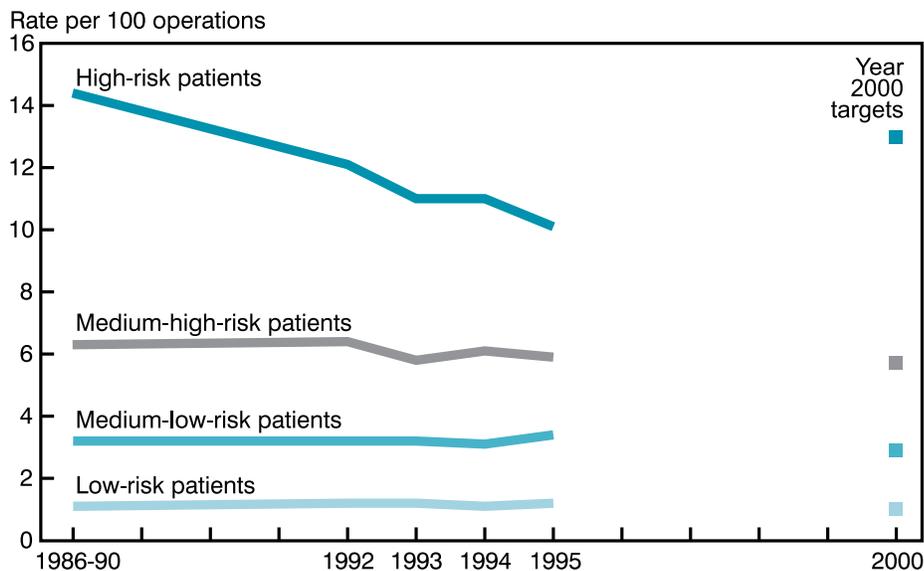
The reduction in incidence of infectious diseases is a significant public health achievement of this century. Despite the progress that has been made, infectious diseases remain an important cause of illness and death in the United States. Each of the causative agents of infectious diseases, even those that are currently rare, pose a potential threat of recurrence or development of resistance to current treatment. For example, susceptibility to active tuberculosis among persons infected with the human immunodeficiency virus (HIV) has contributed to an increase in the number of tuberculosis cases after a steady decline since the 1950's (1). The development and widespread use of vaccines has been instrumental in reducing the incidence of many infectious diseases, particularly childhood diseases. Approximately 80 percent of childhood vaccine doses are recommended for administration before the second birthday; however, under-vaccination in this age group has been a continuing problem (2). Protecting children against vaccine-preventable diseases has become a national priority.

## Data Summary

### Highlights

Immunization levels among children are the highest ever recorded in the United States (objective 20.11). The proportion of children 19–35 months who have been immunized against diphtheria, tetanus, and pertussis increased from 90 percent in 1994 to 95 percent in 1995. Immunization levels for *Haemophilus influenzae* Type b increased from 75 to 92 percent over the same time period. The proportion of children who have received a complete set of vaccinations comprising four doses of diphtheria-tetanus-pertussis vaccine, three doses of polio vaccine, and one dose of measles-containing (MMR) vaccine increased from 68 percent in 1994 to 76 percent in 1995. Children immunized against

**Figure 21. Incidence of surgical wound infections: United States, 1986–90, 1992–95, and year 2000 targets for objective 20.5**



	1986–90	1992	1993	1994	1995	Year 2000 target
Low-risk patients . . . . .	1.1	1.2	1.2	1.1	1.2	1.0
Medium-low-risk patients . . . . .	3.2	3.2	3.2	3.1	3.4	2.9
Medium-high-risk patients . . . . .	6.3	6.4	5.8	6.1	5.9	5.7
High-risk patients . . . . .	14.4	12.1	11.0	11.0	10.1	13.0

SOURCE: Centers for Disease Control and Prevention, National Center for Infectious Diseases, National Nosocomial Infection Surveillance System.

hepatitis B doubled from 34 to 68 percent between 1994 and 1995. Vaccination levels for pneumonia and influenza among people 65 years and over also increased among the total population and among blacks between 1994 and 1995; among Hispanics, although pneumonia immunizations increased, influenza immunizations declined. Immunization coverage among older blacks and Hispanics remains substantially below the coverage in the total population.

The incidence of almost all vaccine-preventable diseases (20.1) continued to be low during 1995, with no cases of polio due to wild virus and fewer than 10 cases each of tetanus among persons 25 years of age and under and reported congenital rubella. There were no cases of diphtheria among persons 25 years and under. An interruption of indigenous measles transmission likely occurred in the fall of 1993, although reintroduction of the

disease resulted in moderate measles outbreaks in 1994 primarily among groups that refuse vaccination; in 1995, measles cases reached a new low. Pertussis incidence, which had declined by 15 percent in 1994 from the 20-year high reported in 1993, increased in 1995. Provisional data for 1996 show increases in measles, rubella, and pertussis, and declines in congenital rubella syndrome and mumps.

Incidence of tuberculosis declined in 1995 to the lowest rate since the 1988 baseline (20.4). The 1995 rates for blacks, Hispanics, and American Indians and Alaska Natives declined from the 1994 rates and are below the 1988 baselines; rates for Asians and Pacific Islanders continue to increase and are over five times as high as rates for the total population.

The incidence of hepatitis B has continued to decline and the number of cases among high-risk groups have also declined (20.3).

## Summary of Progress

Data are available to assess progress for 16 of the 19 objectives in the Immunization and Infectious Diseases priority area. Objectives 20.2 and 20.7 have exceeded the year 2000 targets. For five objectives (20.3, 20.4, 20.9, 20.13, and 20.16), there is progress toward achieving the targets. Trends for two objectives (20.12 and 20.18) indicate movement away from the target. Mixed results are shown for seven objectives (20.1, 20.5 (see [figure 21](#)), 20.6, 20.10, 20.11, 20.15, and 20.19). Data are not yet available to provide measures after baseline for three objectives (20.8, 20.14, and 20.17).

## Data Issues

### Definitions

Operational definitions and data collection specifications for all year 2000 objectives in priority area 20 have been published in the National Center for Health Statistics *Statistical Notes* series (3). Data issues are discussed and references are cited for expanded discussions of the data systems that provide data for the national objectives. When appropriate, the text of questionnaire items used to measure the objectives is also provided. See the [appendix](#) and [appendix table VII](#) for further information.

Epidemic-related pneumonia and influenza deaths are defined as those that are above the normal yearly fluctuations of mortality from these diseases. The data cannot be obtained directly from published mortality figures. Each year expected numbers of pneumonia and influenza deaths are calculated through a cyclical regression model using data for previous years but excluding data for the periods when mortality was known to be raised by influenza epidemics (4). Epidemic-related deaths are defined as those that exceed the predicted number during epidemic periods based on the model.

### Data Source Descriptions

The National Notifiable Disease Surveillance System (NNDSS) is the data source for tracking cases of vaccine-preventable diseases (20.1). Interim data from this system are routinely published in the *Morbidity and Mortality Weekly Report*. Final data, used to track objective 20.1, are

published in the annual *Summary of Notifiable Diseases* (5). Detailed epidemiologic analyses of data from NNDSS are sometimes published in special surveillance reports. Data in these reports may not agree exactly with reports published in the *Morbidity and Mortality Weekly Report* because of differences in timing or refinements in case definition. The NNDSS is the data source for specific disease surveillance systems, such as the Viral Hepatitis Surveillance System and the Tuberculosis Morbidity Data System (20.3 and 20.4). In the case of the Viral Hepatitis Surveillance System, the data are corrected for underreporting.

The data on provision of immunizations by physicians for objective 20.14 are from the Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse practitioners, family physicians, obstetricians/gynecologists, and internists. The data show the proportion of providers who provided the service to 81–100 percent of their patients.

### Comparability of Data Sources

Data sources on immunization coverage have changed over the years. The baseline data (20.11) were obtained from the 1985 United States Immunization Survey (USIS) and show the range of antigen-specific vaccination levels at the time of the interview among children 24–35 months of age. From 1991 to 1994, the source of the immunization data was the National Health Interview Survey (NHIS) and the age included in the data set was expanded to children 19–35 months of age. In 1992, the NHIS questions on childhood immunizations were modified; therefore, the 1991 data are not directly comparable to data for subsequent years. The 1992 data are now considered the baseline data for estimates from the NHIS. The 1994 NHIS data have been provider-verified and adjusted; providers were contacted and asked to provide vaccination information for each child in the sample.

The 1995 data are from the National Immunization Survey (NIS) because the NHIS provided national estimates only; the NIS provides comparable national, State, and local vaccination coverage estimates. The NIS, first fielded in 1994, is an ongoing survey that provides the first

population-based State and urban area-specific estimates of vaccination coverage by a standard methodology for the United States for children 19–35 months of age.

## References

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4. Lui K-J, Kendal AP. Impact of influenza epidemics on mortality in the United States from October 1972 to May 1985. *Am J Public Health* 77:712–6. 1987.
5. Centers for Disease Control and Prevention. Summary of notifiable diseases, United States, 1995. *MMWR* 44(54). 1996.

**Table 20. Immunization and infectious diseases objective status**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>20.1</b>	<b>Vaccine-preventable diseases (number of cases)<sup>1</sup></b>									
	Diphtheria among people 25 years and under . . . . .	1988	1	2	2	3	0	2	0	0
	Tetanus among people 25 years and under. . . . .	1988	3	6	4	7	4	5	5	0
	Polio (wild-type virus) . . . . .	1988	0	0	0	0	0	0	0	0
	Measles . . . . .	1988	<sup>a</sup> 3,396	26,527	9,411	2,237	312	963	309	0
	Rubella . . . . .	1988	225	1,125	1,401	160	192	227	128	0
	Congenital Rubella Syndrome . . . . .	1988	6	11	47	11	5	7	6	0
	Mumps . . . . .	1988	4,866	5,292	4,264	2,572	1,692	1,537	906	500
	Pertussis. . . . .	1988	3,450	4,570	2,719	4,083	6,586	4,617	5,137	1,000
<b>20.2</b>	<b>Epidemic-related pneumonia and influenza deaths among people 65 years and over (per 100,000)</b> . . . . .	1979–87	<sup>2</sup> 19.9	<sup>3</sup> 22.6	<sup>4</sup> 18.6	<sup>5</sup> 20.0	<sup>6</sup> 15.7	---	---	15.9
<b>20.3*</b>	<b>Viral hepatitis cases (per 100,000)</b>									
	Hepatitis B . . . . .	1987	63.5	50.6	42.6	37.7	30.9	28.7	22.9	40.0
	Hepatitis A . . . . .	1987	33.0	37.9	29.0	27.2	28.2	30.9	33.0	16.1
	Hepatitis C . . . . .	1987	18.3	13.1	8.3	5.6	4.4	4.1	3.7	13.7
	Hepatitis B (number of cases)									
	a. Injecting drug users . . . . .	1987	44,348	17,615	12,666	10,576	15,136	14,180	10,216	7,932
	b. Heterosexually active people . . . . .	1987	33,995	33,971	43,795	46,152	26,289	25,375	19,831	22,663
	c. Men who have sex with men . . . . .	1987	13,598	13,840	14,598	6,730	9,560	9,702	9,615	4,568
	d. Children of Asians/Pacific Islanders. . . . .	1987	10,817	8,807	7,514	6,730	5,576	5,224	4,207	1,500
	e. Occupationally exposed workers. . . . .	1987	3,090	1,258	2,576	1,923	727	506	407	623
	f. Infants (chronic infections) . . . . .	1987	6,012	3,003	2,235	2,464	2,464	1,682	1,682	1,111
	g. Alaska Natives (number of new carriers). . . . .	1987	15	15	15	15	1	0	0	1
	Hepatitis B (cases per 100,000)									
	h. Blacks . . . . .	1992	52.8	...	...	...	57.0	52.3	45.3	40
	Hepatitis A (cases per 100,000)									
	i. Hispanics . . . . .	1992	53.8	...	...	...	50.6	61.9	44.9	<sup>a</sup> 26.9
	j. American Indians/Alaska Natives . . . . .	1992	256.0	...	...	...	192.7	363.7	240.7	128
	Hepatitis C (cases per 100,000)									
	k. Hispanics . . . . .	1992	17.2	...	...	...	12.3	9.1	4.5	<sup>a</sup> 13.7
<b>20.4</b>	<b>Tuberculosis cases (per 100,000)</b> . . . . .	1988	9.1	10.3	10.4	10.5	9.8	9.4	8.7	3.5
	a. Asians/Pacific Islanders . . . . .	1988	36.3	41.6	41.8	46.6	44.5	45.3	45.9	15.0
	b. Blacks . . . . .	1988	28.3	33.0	31.9	31.7	29.1	26.8	23.9	10.0
	c. Hispanics . . . . .	1988	18.3	21.4	22.8	22.4	20.6	19.5	18.0	5.0
	d. American Indians/Alaska Natives . . . . .	1988	18.1	18.9	16.3	16.3	14.6	17.4	16.5	5.0
<b>20.5</b>	<b>Surgical wound and nosocomial infections</b>									
	Device-associated nosocomial infection rates in ICU patients (per 1,000 device-days)									
	Bloodstream Infections									
	Medical/coronary ICU's . . . . .	1986–90	6.9	...	---	6.5	5.9	5.4	5.7	6.2
	Surgical/medical-surgical ICU's . . . . .	1986–90	5.3	...	---	5.8	4.9	4.6	4.3	4.8
	Pediatric ICU's. . . . .	1986–90	11.4	...	---	7.9	8.3	8	7.8	10.3

**Table 20. Immunization and infectious diseases objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>Urinary Tract Infections</b>									
Medical/coronary ICU's . . . . .	1986–90	10.7	...	---	10.1	8.5	7.9	7.3	9.6
Surgical/medical-surgical ICU's . . . . .	1986–90	7.6	...	---	6.3	5.9	5.8	4.9	6.8
Pediatric ICU's. . . . .	1986–90	5.8	...	---	5.4	5.1	5.2	5.9	5.2
<b>Pneumonia</b>									
Medical/coronary ICU's . . . . .	1986–90	12.8	...	---	9	9.5	8.6	10.1	11.5
Surgical/medical-surgical ICU's . . . . .	1986–90	17.6	...	---	15.1	14.1	13.6	12.9	15.8
Pediatric ICU's. . . . .	1986–90	4.7	...	---	6.7	5.8	5.7	5.5	4.2
<b>Surgical wound infection rates (per 100 operations)</b>									
Low-risk patients . . . . .	1986–90	1.1	...	---	1.2	1.2	1.1	1.2	1.0
Medium-low-risk patients . . . . .	1986–90	3.2	...	---	3.2	3.2	3.1	3.4	2.9
Medium-high-risk patients . . . . .	1986–90	6.3	...	---	6.4	5.8	6.1	5.9	5.7
High-risk patients. . . . .	1986–90	14.4	...	---	12.1	11.0	11.0	10.1	13.0
<b>20.6 Illness among international travelers (number of cases)</b>									
Typhoid fever . . . . .	1987	280	386	351	299	308	309	258	140
Hepatitis A . . . . .	1987	4,475	3,962	3,814	3,814	4,581	6,602	7,815	1,119
Malaria . . . . .	1987	932	<sup>7</sup> 1,102	1,021	910	1,275	1,007	---	750
<b>20.7 Bacterial meningitis cases (per 100,000)</b>									
a. Alaska Natives . . . . .	1987	33	---	17	---	---	---	---	8
<b>20.8 Infectious diarrhea among children in child care centers</b>									
Children 0–5 years . . . . .	1991	32%	...	...	---	---	---	---	24%
Children 0–3 years . . . . .	1991	38%	...	...	---	---	---	---	28%
<b>20.9 Ear infections among children 4 years and under (restricted activity days per 100 children)</b>									
	1987	135.4	125.0	155.7	155.2	196.3	137.0	134.4	105.0
<b>20.10 Pneumonia-related restricted activity days (per 100 people)</b>									
People 65 years and over. . . . .	1987	19.1	46.2	78.5	63.5	45.1	71.3	58.8	15.1
Children 4 years and under. . . . .	1987	29.4	51.3	<sup>8</sup> 24.1	<sup>8</sup> 19.4	<sup>8</sup> 22.5	39.5	<sup>8</sup> 23.2	24.0
<b>20.11 Immunization (percent immunized)</b>									
<b>Basic immunization series among children</b>									
Children 2 years and under . . . . .	1985	<sup>9</sup> 54–64%	---	---	---	---	---	---	90%
<b>Children 19–35 months</b>									
Diphtheria-tetanus-pertussis (3 or more doses). . . . .	...	---	---	69%	83%	88%	<sup>9</sup> 90%	95%	...
Polio (3 or more doses) . . . . .	...	---	---	53%	72%	79%	79%	88%	...
Measles-containing . . . . .	...	---	---	82%	83%	84%	90%	90%	...
Haemophilus influenzae B (3 or more doses). . . . .	...	---	---	58%	28%	55%	75%	92%	...
Hepatitis B (3 or more doses). . . . .	...	---	---	---	---	16%	34%	68%	...
4DTP/3polio/1MMR . . . . .	...	---	---	---	55%	67%	68%	76%	...
Children in licensed child care facilities <sup>9,10</sup> . . . . .	1987–88	<sup>11</sup> 94–95% <sup>12</sup> 94–96%	<sup>13</sup> 94–96%	<sup>14</sup> 94–96%	<sup>15</sup> 95–98%	<sup>16</sup> 97–98%	<sup>17</sup> 98–99%		95%
Children in kindergarten through post-secondary education institutions <sup>9,10</sup> . . . . .	1987–88	<sup>11</sup> 97–98% <sup>12</sup> 97–98%	<sup>13</sup> 96–98%	<sup>14</sup> 96–98%	<sup>15</sup> 92–94%	<sup>16</sup> 93–94%	<sup>17</sup> 94–95%		95%
<b>Hepatitis B immunizations</b>									
Infants of antigen-positive mothers. . . . .	1991	40%	...	...	71%	71%	78%	---	90%
Occupationally exposed workers . . . . .	1989	37%	---	---	50%	---	67%	---	90%
Injecting drug users in drug treatment programs . . . . .	...	---	---	---	---	---	---	---	50%

**Table 20. Immunization and infectious diseases objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Men who have sex with men . . . . .	1992–93	3%	...	...	...	...	---	---	50%
Pneumococcal immunizations									
Institutionalized chronically ill people or older people . . . . .	...	---	---	---	---	---	---	---	80%
Noninstitutionalized high-risk populations . . . . .	1989	<sup>a</sup> 15%	---	21%	---	28%	30%	---	60%
a. Blacks 65 years and over . . . . .	1989	<sup>a</sup> 6%	---	---	---	14%	15%	---	60%
b. Hispanics 65 years and over . . . . .	1989	<sup>a</sup> 11%	---	---	---	12%	14%	---	60%
Influenza immunizations									
Institutionalized chronically ill people or older people . . . . .	...	---	---	---	---	---	---	---	80%
Noninstitutionalized high-risk populations . . . . .	1989	<sup>a</sup> 33%	---	42%	---	52%	55%	---	60%
a. Blacks 65 years and over . . . . .	1989	<sup>a</sup> 20%	---	---	---	32%	39%	---	60%
b. Hispanics 65 years and over . . . . .	1989	<sup>a</sup> 28%	---	---	---	47%	38%	---	60%
<b>20.12 Post exposure rabies treatments (number)</b> . . . . .	1987	18,000	---	18,800	24,700	25,000–43,000	22,000–43,000	---	9,000
<b>20.13 Immunization laws (number of States)<sup>18</sup></b> . . . . .	1989	10–49	---	34–50	34–50	---	---	<sup>19</sup> 42–50	50
<b>20.14 Provision of immunizations by clinicians</b> . . . . .	...	---	---	---	---	---	---	---	90%
Percent of clinicians routinely providing service to 81–100% of patients									
Children:									
DTP vaccination									
Pediatricians . . . . .	1992	86%	...	...	...	---	---	---	90%
Nurse practitioners . . . . .	1992	76%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	89%	...	...	...	---	---	---	90%
Oral polio vaccination									
Pediatricians . . . . .	1992	87%	...	...	...	---	---	---	90%
Nurse practitioners . . . . .	1992	76%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	89%	...	...	...	---	---	---	90%
Tetanus-diphtheria booster (under 18 years)									
Pediatricians . . . . .	1992	79%	...	...	...	---	---	---	90%
Nurse practitioners . . . . .	1992	71%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	70%	...	...	...	---	---	---	90%
Hib vaccination									
Pediatricians . . . . .	1992	85%	...	...	...	---	---	---	90%
Nurse practitioners . . . . .	1992	68%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	74%	...	...	...	---	---	---	90%
Adults:									
Tetanus-diphtheria booster (18 years and over)									
Nurse practitioners . . . . .	1992	38%	...	...	...	---	---	---	90%
Obstetricians/gynecologists . . . . .	1992	4%	...	...	...	---	---	---	90%
Internists . . . . .	1992	29%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	28%	...	...	...	---	---	---	90%
Influenza vaccination (65 years and over)									
Nurse practitioners . . . . .	1992	42%	...	...	...	---	---	---	90%
Obstetricians/gynecologists . . . . .	1992	6%	...	...	...	---	---	---	90%
Internists . . . . .	1992	49%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	31%	...	...	...	---	---	---	90%

**Table 20. Immunization and infectious diseases objective status—Con.**

Objective	Baseline year	Baseline	1990	1991	1992	1993	1994	1995	Target 2000
Pneumococcal vaccination (65 years and over)									
Nurse practitioners . . . . .	1992	33%	...	...	...	---	---	---	90%
Obstetricians/gynecologists . . . . .	1992	5%	...	...	...	---	---	---	90%
Internists . . . . .	1992	40%	...	...	...	---	---	---	90%
Family physicians . . . . .	1992	25%	...	...	...	---	---	---	90%
<b>20.15 Financial barriers to immunization</b>									
Employment-based insurance plans that provide coverage for immunizations									
Conventional insurance plans . . . . .	1989	45%	47%	---	53%	---	---	---	100%
Preferred provider organization plans . . . . .	1989	62%	65%	---	65%	---	---	---	100%
Health maintenance organization plans . . . . .	1989	98%	98%	---	95%	---	---	---	100%
<b>20.16 Public health department provision of immunizations</b>									
Pneumococcal vaccine . . . . .	1990	37%	...	---	---	<sup>20</sup> 48%	---	---	90%
Influenza vaccine . . . . .	1990	60%	...	---	---	<sup>20</sup> 91%	---	---	90%
Tetanus/Diphtheria vaccine . . . . .	1990	70%	...	---	---	---	---	---	90%
Tetanus . . . . .	...	---	---	---	---	<sup>20</sup> 85%	---	---	90%
Diphtheria . . . . .	...	---	---	---	---	<sup>20</sup> 77%	---	---	90%
Hepatitis B vaccine . . . . .	1992–93	77%	...	...	...	...	---	---	90%
<b>20.17 Local health department programs to identify tuberculosis cases</b>	1992–93	80%	...	...	...	...	---	---	90%
<b>20.18 Preventive therapy for tuberculosis (percent of infected persons completing therapy)</b>									
. . . . .	1987	66.3%	63.0%	64.9%	66.3%	65.3%	---	---	85%
<b>20.19 Laboratory capability for influenza diagnosis</b>									
Tertiary care hospital laboratories . . . . .	1993	52%	...	...	...	...	---	57%	85%
Secondary care hospital laboratories . . . . .	1993	45%	...	...	...	...	---	46%	50%
Health maintenance organization laboratories . . . . .	1993	<sup>a</sup> 68%	...	...	...	...	---	56%	50%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline and target have been revised.

<sup>1</sup>1996 provisional data are as follows: 0 polio cases; 488 measles cases; 210 rubella cases; 2 congenital rubella syndrome cases; 658 mumps cases; 6,467 pertussis cases.

<sup>2</sup>1979–80 influenza season through 1986–87 influenza season.

<sup>3</sup>1987–88 influenza season through 1989–90 influenza season.

<sup>4</sup>1988–89 influenza season through 1990–91 influenza season.

<sup>5</sup>1989–90 influenza season through 1991–92 influenza season.

<sup>6</sup>1990–91 influenza season through 1992–93 influenza season.

<sup>7</sup>1989 data.

<sup>8</sup>Numerator has a relative standard error of more than 30%.

<sup>9</sup>Range of antigen-specific immunization levels.

<sup>10</sup>Three or more doses for DTP and polio.

<sup>11</sup>1987–88 school year.

<sup>12</sup>1989–90 school year.

<sup>13</sup>1990–91 school year.

<sup>14</sup>1991–92 school year.

<sup>15</sup>1992–93 school year.

<sup>16</sup>1993–94 school year.

<sup>17</sup>1994–95 school year.

<sup>18</sup>Range depending on antigen and whether laws cover preschool and/or kindergarten and above. Excludes States with laws covering Hepatitis B vaccination.

<sup>19</sup>1994–95 data.

<sup>20</sup>1992–93 data.

NOTE: Data include revisions and, therefore, may differ from those previously published in these reports and other publications.

<i>Objective number</i>	<i>Data source</i>
20.1	National Notifiable Disease Surveillance System, CDC, EPO.
20.2	NCID, CDC. National Vital Statistics System, CDC, NCHS.
20.3*, 20.3a–c, i–k	National Notifiable Disease Surveillance System, CDC, EPO. Sentinel Counties Surveillance of Acute Viral Hepatitis, Viral Hepatitis Surveillance Program, CDC, NCID.
20.3d	CDC, NCID.
20.3e	National Notifiable Disease Surveillance System, CDC, EPO. Sentinel Counties Surveillance of Acute Viral Hepatitis, Viral Hepatitis Surveillance Program, CDC, NCID.
20.3f	National Notifiable Disease Surveillance System, CDC, EPO. Margolis, HS. Estimates and reported cases of hepatitis B infection and its sequelae in Alaskan Natives. <i>Lancet</i> (1987) 2: 1134–6.
20.3g	IHS Alaskan Registry.
20.3h	National Notifiable Disease Surveillance System, CDC, EPO.
20.4, 20.4a–d	Tuberculosis Morbidity Data, CDC, NCHSTP, Division of Tuberculosis Elimination.
20.5	National Nosocomial Infection Surveillance System, CDC, NCID.
20.6	Malaria Surveillance System, CDC, NCID. Typhoid Surveillance System, CDC, NCID. National Notifiable Disease Surveillance System, CDC, EPO. Sentinel Counties Surveillance of Acute Viral Hepatitis, Viral Hepatitis Surveillance Program, CDC, NCID.
20.7	Bacterial Meningitis Surveillance System, CDC, NCID.
20.7a	Arctic Investigations Laboratory, CDC, NCID.
20.8	National Health Interview Survey, CDC, NCHS.
20.9	National Health Interview Survey, CDC, NCHS.
20.10	National Health Interview Survey, CDC, NCHS.
20.11	Basic immunization series among children: Baseline for children 2 years and under: United States Immunization Survey, CDC, NCHSTP. Children 19–35 months: 1991–1994 Updates: National Health Interview Survey, CDC, NCHS. 1995 Updates: National Immunization Survey, CDC, NIP. Immunizations among children in licensed child care facilities and in schools: State Immunization Survey, CDC, NCPS. Hepatitis B immunizations among infants of antigen-positive women: Perinatal Hepatitis Screening Grant Program, CDC, NCID. Hepatitis B immunizations among occupationally exposed workers: Baseline: Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA; Updates: CDC, NCID. Hepatitis B immunizations among men who have sex with men: Young Men’s Survey, San Francisco Department of Public Health. <i>MMWR</i> Vol. 45 No.10: March 15, 1996. Pneumococcal and influenza immunizations among noninstitutionalized people: National Health Interview Survey, CDC, NCHS.
20.11a,b	National Health Interview Survey, CDC, NCHS.
20.12	Rabies Vaccine and Immune Globulin Manufacturers Sales Data, CDC, NCID.
20.13	Survey of Immunization Laws, CDC, NCHSTP.

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<i>Objective number</i>	<i>Data source</i>
20.14	Primary Care Provider Surveys, OASH, ODPHP.
20.15	Health Insurance Association of America Employer Survey, Health Insurance Association of America.
20.16	Baseline: Immunization Grant Program Profiles, CDC, NCPS. Update: National Profile of Local Health Departments, National Association of County and City Health Officials.
20.17	National Profile of Local Health Departments, National Association of County and City Health Officials.
20.18	Tuberculosis Program Management Report Data on Completion of Preventive Therapy, CDC, NCHSTP.
20.19	Survey of Laboratories using Rapid Viral Diagnosis of Influenza, CDC, NCID.

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\*Duplicate objective. See full text of objective following this table.

# Immunization and Infectious Diseases Objectives

**20.1:** Reduce indigenous cases of vaccine-preventable diseases as follows:

Disease	2000 target
Diphtheria among people aged 25 and younger	0
Tetanus among people aged 25 and younger	0
Polio (wild-type virus)	0
Measles (indigenous)	0
Rubella	0
Congenital Rubella Syndrome	0
Mumps	500
Pertussis	1,000

**20.2:** Reduce epidemic-related pneumonia and influenza deaths among people aged 65 and older to no more than 15.9 per 100,000 people.

*NOTE: Epidemic-related pneumonia and influenza deaths are those that occur above and beyond the normal yearly fluctuations of mortality. Because of the extreme variability in epidemic-related deaths from year to year, they will be measured using a 3-year average.*

**20.3\*:** Reduce viral hepatitis as follows:

Hepatitis B: 40 per 100,000 people  
 Hepatitis A: 16.1 per 100,000 people  
 Hepatitis C: 13.7 cases per 100,000 people

**20.3a:** Reduce hepatitis B among injecting drug users to no more than 7,932 cases.

**20.3b\*:** Reduce hepatitis B among heterosexually active people to no more than 22,663 cases.

Duplicate objective: 19.7

**20.3c\*:** Reduce hepatitis B among men who have sex with men to no more than 4,568 cases.

Duplicate objective: 19.7

**20.3d:** Reduce hepatitis B among children of Asian and Pacific Islanders to no more than 1,500 cases.

**20.3e\*:** Reduce hepatitis B among occupationally exposed workers to no more than 623 cases.

Duplicate objective: 10.5

**20.3f:** Reduce hepatitis B among infants to no more than 1,111 chronic infections.

**20.3g:** Reduce hepatitis B among Alaska Natives to no more than 1 new chronic infection.

**20.3h:** Reduce hepatitis B among blacks to no more than 40 cases per 100,000 people.

**20.3i:** Reduce hepatitis A among Hispanics to no more than 26.9 cases per 100,000 people.

**20.3j:** Reduce hepatitis A among American Indians and Alaska Natives to no more than 128 cases per 100,000 people.

**20.3k:** Reduce hepatitis C among Hispanics to no more than 13.7 cases per 100,000 people.

**20.4:** Reduce tuberculosis to an incidence of no more than 3.5 cases per 100,000 people.

**20.4a:** Reduce tuberculosis among Asians and Pacific Islanders to an incidence of no more than 15 cases per 100,000 people.

**20.4b:** Reduce tuberculosis among blacks to an incidence of no more than 10 cases per 100,000 people.

**20.4c:** Reduce tuberculosis among Hispanics to an incidence of no more than 5 cases per 100,000 people.

**20.4d:** Reduce tuberculosis among American Indians and Alaska Natives to an incidence of no more than 5 cases per 100,000 people.

**20.5:** Reduce by at least 10 percent the incidence of surgical wound infections and nosocomial infections in intensive care patients.

**20.6:** Reduce selected illness among international travelers, as follows:

Typhoid fever: 140 cases  
 Hepatitis A: 1,119 cases  
 Malaria: 750 cases

**20.7:** Reduce bacterial meningitis to no more than 4.7 cases per 100,000 people.

**20.7a:** Reduce bacterial meningitis among Alaska Natives to no more than 8 cases per 100,000 people.

**20.8:** Reduce infectious diarrhea by at least 25 percent among children in licensed child care centers and children

in programs that provide an Individualized Education Program (IEP) or Individualized Health Plan (IHP).

**20.9:** Reduce acute middle ear infections among children aged 4 and younger, as measured by days of restricted activity or school absenteeism, to no more than 105 days per 100 children.

**20.10:** Reduce pneumonia-related days of restricted activity as follows:

15.1 days per 100 people aged 65 and older  
 24 days per 100 children aged 4 and younger

**20.11:** Increase immunization levels as follows:

Basic immunization series among children under age 2: at least 90 percent.

Basic immunization series among children in licensed child care facilities and kindergarten through post-secondary education institutions: at least 95 percent.

Hepatitis B immunization among high-risk populations, including infants of hepatitis B surface antigen-positive mothers to at least 90 percent; occupationally exposed workers to at least 90 percent; injecting drug users in drug treatment programs to at least 50 percent; and men who have sex with men to at least 50 percent.

Pneumococcal pneumonia and influenza immunization among institutionalized chronically ill or older people: at least 80 percent.

Pneumococcal pneumonia and influenza immunization among noninstitutionalized, high-risk populations, as defined by the Immunization Practices Advisory Committee: at least 60 percent.

Duplicate objective for occupationally exposed workers: 10.9

**20.11a:** Increase pneumococcal pneumonia and influenza immunization among blacks aged 65 years and older to 60 percent.

**20.11b:** Increase pneumococcal pneumonia and influenza immunization among Hispanics aged 65 years and older to 60 percent.

**20.12:** Reduce postexposure rabies treatments to no more than 9,000 per year.

**20.13:** Expand immunization laws for schools, preschools, and day care settings to all States for all antigens.

**20.14:** Increase to at least 90 percent the proportion of primary care providers who provide information and counseling about immunizations and offer immunizations as appropriate for their patients.

**20.15:** Improve the financing and delivery of immunizations for children and adults so that virtually no American has a financial barrier to receiving recommended immunizations.

**20.16:** Increase to at least 90 percent the proportion of public health departments that provide adult immunization for influenza, pneumococcal disease, hepatitis B, tetanus, and diphtheria.

**20.17:** Increase to at least 90 percent the proportion of local health departments that have ongoing programs for actively identifying cases of tuberculosis and latent infection in populations at high risk for tuberculosis.

*NOTE: Local health department refers to any local component of the public health system, defined as an administrative and service unit of local or State government concerned with health and carrying some responsibility for the health of a jurisdiction smaller than a State.*

**20.18:** Increase to at least 85 percent the proportion of people found to have tuberculosis infection who completed courses of preventive therapy.

**20.19:** Increase to at least 85 percent the proportion of tertiary care hospital laboratories and to at least 50 percent the proportion of secondary care hospital and health maintenance organization laboratories possessing technologies for rapid viral diagnosis of influenza.

\*Duplicate objective.

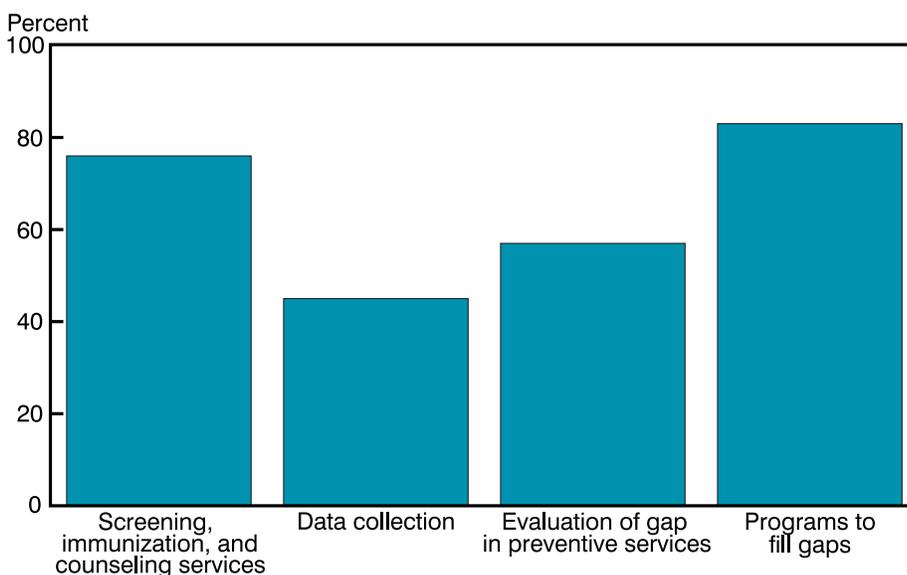
# Priority Area 21 Clinical Preventive Services

## Background

Priority area 21 was designed to directly address the third goal of *Healthy People 2000*, "Achieve access to preventive services for all Americans." The priority area provides a crosscutting assessment of access for all populations by looking at measures of the provision and receipt of a basic set of recommended clinical preventive services (CPS) across clinical settings. (This priority area was originally linked with Priority Area 8, also crosscutting in terms of a delivery site.) In Priority Area 21, access is conceptualized, in part, by the proportion of the total population that has a specific source of ongoing primary care. Access is also expressed in terms of the extent of the financial barriers to receiving services or for reimbursement for CPS provided. People who have financial barriers to receiving the recommended CPS are measured by proxy as the proportion of people without health insurance. Other measures of access include whether people receiving services from a primary care provider are offered the recommended CPS, the proportion of providers who offer the recommended CPS to their patients, and the proportion of people eligible for services through publicly funded programs who are offered the recommended CPS in the latter clinical setting. Measurement of access to care is further enhanced by data to determine whether local health departments are assessing and filling the gaps in the provision of CPS in their jurisdictions, and actions to assure that the health professions workforce more accurately reflects the cultural makeup of the American people served.

Clinical preventive services are those disease prevention and health promotion services such as immunizations, screening for early detection of disease or risk factors, and patient counseling that are delivered to individuals in a health care setting. The U.S. Clinical Preventive Services Task Force, a panel of prevention experts convened by the U.S. Public Health Service, first reviewed the full range of scientific literature on clinical preventive

**Figure 22. Proportion of local health departments that assess and assure access to clinical preventive services: United States, 1992–93 for objective 21.7**



1992–93	
Screening, immunization, and counseling services . . . .	76
Data collection . . . . .	45
Evaluation of gaps in preventive services . . . . .	57
Programs to fill gaps . . . . .	83

SOURCE: National Association of County and City Health Officials, National Profile of Local Health Departments.

services and developed scientifically sound recommendations for specific services based on age, sex, and other risk factors in 1989 (1). These recommendations were updated in 1996 (2) and, at the 1997 National Coordinating Committee on Clinical Preventive Services, it was strongly suggested that the delivery of preventive services by clinicians would dramatically increase now that insurance companies were allowing reimbursement for these services.

Preventive services for specific diseases and health-related behaviors are addressed in other priority areas of *Healthy People 2000*. For example, receipt of Pap smears, clinical breast exams, and mammography are addressed in the cancer priority area. The objectives in this priority area support those objectives by considering clinical preventive services as a complete package and addressing barriers that impede access to and receipt of these services.

## Data Summary

### Highlights

The average number of years of healthy life (21.1) increased slightly from last year's level, but remains below the 1990 baseline. Data on the proportion of adults who received recommended clinical preventive services in 1994 show improvements for many specific services compared with 1991 and 1992 baseline data. For example, the proportion of adults who received a tetanus booster in the last 10 years improved from 52 percent in 1991 to 56 percent in 1994. Pneumococcal and influenza vaccinations among older adults improved to an even greater extent. More women received Pap tests in the previous 3 years and mammograms in the previous 2 years in 1994 compared with 1992. The proportion of the adult population with a specific source of primary care has increased from 80 percent in 1991 to 84 percent in 1994 (21.3). Hispanic and black adults as well as other subgroups

of the population are less likely to have a specific source of primary care, but improvements have occurred for these groups as well. The proportion of adults under 65 years old without health care coverage increased from 15.7 percent in 1989 to almost 18 percent in 1994 (21.4). The proportion of people without health care coverage is used as a proxy measure of financial barriers to receiving recommended clinical preventive services.

### Summary of Progress

Data are available for five of the eight Clinical Preventive Services objectives to assess trends toward meeting the year 2000 targets. For two objectives (21.3 and 21.8), data show progress toward achieving the year 2000 targets. Trends are moving away from targets for two objectives (21.1 and 21.4). Trends are mixed for objective 21.2. Data beyond baseline are not available for three objectives (21.5–21.7).

### Data Issues

#### Years of Healthy Life

The concept of increasing years of healthy life is one of the three *Healthy People 2000* goals and a specific measure has been developed to track an objective in three priority areas (8.1, 17.1, and 21.1). See the [appendix](#) for a discussion of years of healthy life.

#### Definitions

Questions to establish receipt of clinical preventive services among adults (objective 21.2) are obtained through periodic supplements to the NHIS. The supplements provide limited information on the counseling recommendations, and recommendations for high-risk groups are not addressed. Respondents were asked if they had been asked about at least one behavior that indicates the need for counseling at their last routine checkup. If the response was positive, this was used as an indication that the person had received at least one recommended counseling service.

Data for objective 21.6 (provision of recommended services) are from the Primary Care Provider Surveys (PCPS). The sample was drawn from the membership rolls of professional organizations for pediatricians, nurse

practitioners, family physicians, obstetricians/gynecologists, and internists. Response rates varied from 50–80 percent across these groups. The data on provision of recommended services represent the proportion of providers who routinely provided 81–100 percent of eligible patients with the recommended services.

### Comparability of Data Sources

Data on the proportion of people who have a specific source of ongoing primary care are obtained from the NHIS (objective 21.3). In 1991 and 1992, information on source of primary care was received from one adult randomly selected from among household members. Beginning in 1993, a knowledgeable adult respondent provided information for all members of the household.

Data on the proportion of people under 65 years of age who do not have health care coverage are from the NHIS (21.4). The 1989 baseline data and tracking data from 1992 through 1994 are not directly comparable because of questionnaire changes.

### Proxy Measures

The proportion of the U.S. population under 65 years of age that does not have health care coverage (private insurance, Medicare, Medicaid, or a military plan) is used to measure progress for objective 21.4, financial barriers to receiving recommended clinical preventive services. However, this only provides a partial measure for the objective since many health insurance plans do not provide full coverage for preventive health care. In 1988, only 41 percent of employer-sponsored health insurance plans covered adult physical examinations, 56 percent covered well baby care, and 69 percent covered preventive diagnostic tests (3).

### References

1. U.S. Preventive Services Task Force. Guide to clinical preventive services: An assessment of the effectiveness of 169 interventions. Report of the U.S. Preventive Services Task Force. Baltimore, Maryland: Williams and Wilkins. 1989.
2. U.S. Preventive Services Task Force. Guide to clinical preventive services, 2nd ed. Baltimore, Maryland: Williams and Wilkins. 1996.

3. Health Insurance Association of America. Research bulletin: A profile of employer-sponsored group health insurance. Washington: The Association. 1989.

**Table 21. Clinical preventive services objective status**

<i>Objective</i>		<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>21.1*</b>	<b>Years of healthy life</b>	1990	64.0	...	63.9	63.7	63.5	63.8	---	65
	a. Blacks	1990	56.0	...	56.0	55.6	55.2	55.6	---	60
	b. Hispanics <sup>1</sup>	1990	64.8	...	63.6	<sup>2</sup> 64.0	63.2	64.2	---	65
	c. People 65 years and over <sup>3</sup>	1990	11.9	...	11.8	11.9	11.9	12.1	---	14
<b>21.2</b>	<b>Receipt of recommended services</b>									
	Children 19–35 months									
	Basic immunization series	...	---	---	---	---	---	---	---	90%
	DTP (3 or more doses)	1992	83%	...	...	...	88%	90%	---	...
	Polio (3 or more doses)	1992	72%	...	...	...	79%	79%	---	...
	Measles/Mumps/Rubella (1 dose)	1992	83%	...	...	...	84%	90%	---	...
	Haemophilus influenza b (3 or more doses)	1992	28%	...	...	...	55%	75%	---	...
	Hepatitis B (3 or more doses)	1993	16%	...	...	...	...	34%	---	...
	4DTP/3Polio/1MMR	1992	55%	...	...	...	67%	68%	---	...
	People 18 years and older									
	Routine check-up <sup>4</sup>	1991	74%	...	...	---	78%	70%	---	91%
	Adults 65 years and over	1991	67%	...	...	---	73%	62%	---	...
	Cholesterol checked in last 5 years	1993	60%	...	...	...	...	---	---	75%
	Cholesterol ever checked	1991	63%	...	...	---	71%	---	---	...
	People with low income	1991	46%	...	...	---	55%	---	---	...
	Blacks	1991	56%	...	...	---	72%	---	---	...
	Hispanics	1991	51%	...	...	---	62%	---	---	...
	American Indians/Alaska Natives	1991	46%	...	...	---	60%	---	---	...
	Cholesterol checked in last 2 years	1991	50%	...	...	---	54%	---	---	...
	People with low income	1991	37%	...	...	---	41%	---	---	...
	Hispanics	1991	42%	...	...	---	47%	---	---	...
	Asians/Pacific Islanders	1991	45%	...	...	---	44%	---	---	...
	American Indians/Alaska Natives	1991	38%	...	...	---	49%	---	---	...
	Tetanus booster in last 10 years	1991	52%	...	...	---	57%	56%	---	62%
	People 65 years and over	1991	29%	...	...	---	34%	32%	---	...
	Hispanics	1991	45%	...	...	---	48%	51%	---	...
	Asians/Pacific Islanders	1991	40%	...	...	---	45%	43%	---	...
	People with disabilities	1991	47%	...	...	---	51%	52%	---	...
	Pneumococcal vaccine in lifetime (people 65 years and over)	1991	21%	...	...	---	28%	30%	---	60%
	People with low income	1991	17%	...	...	---	18%	19%	---	...
	Blacks	1991	14%	...	...	---	14%	15%	---	...
	Hispanics	1991	12%	...	...	---	13%	14%	---	...
	Asians/Pacific Islanders	1991	15%	...	...	---	21%	14%	---	...
	Influenza vaccine in last 12 months (people 65 years and over)	1991	42%	...	...	---	52%	55%	---	60%
	People with low income	1991	36%	...	...	---	41%	44%	---	...
	Blacks	1991	27%	...	...	---	33%	39%	---	...
	Hispanics	1991	34%	...	...	---	47%	38%	---	...
	Asians/Pacific Islanders	1991	29%	...	...	---	54%	43%	---	...

**Table 21. Clinical preventive services objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Pap test in last 3 years (females 18 years and over) . . . . .	1992	74%	...	...	...	78%	77%	---	85%
Females 65 years and over . . . . .	1992	51%	...	...	...	58%	57%	---	...
Asians/Pacific Islanders . . . . .	1992	62%	...	...	...	69%	66%	---	...
American Indians/Alaska Natives . . . . .	1992	64%	...	...	...	78%	73%	---	...
Females with disabilities . . . . .	1992	65%	...	...	...	69%	69%	---	...
Breast exam and mammogram in past 2 years (females 50 years and over) . . . . .	1992	51%	...	...	...	55%	56%	---	60%
Females 65 years and over . . . . .	1992	43%	...	...	...	49%	49%	---	...
Females with low income . . . . .	1992	30%	...	...	...	39%	38%	---	...
Asians/Pacific Islanders . . . . .	1992	38%	...	...	...	53%	46%	---	...
American Indians/Alaska Natives . . . . .	1992	31%	...	...	...	38%	53%	---	...
Females with disabilities . . . . .	1992	44%	...	...	...	51%	50%	---	...
Asked at least one screening question at routine check-up <sup>5</sup> . . . . .	1991	56%	...	...	---	63%	56%	---	80%
People 65 years and over . . . . .	1991	42%	...	...	---	48%	38%	---	...
Asians/Pacific Islanders . . . . .	1991	51%	...	...	---	60%	48%	---	...
<b>21.3 Access to primary care (percent with source of care)</b>									
Adults 18 years and over									
Total population . . . . .	1991	80%	...	...	78%	83%	84%	---	95%
a. Hispanics . . . . .	1991	63%	...	...	64%	71%	71%	---	95%
Mexican-Americans . . . . .	1991	57%	...	...	62%	69%	69%	---	95%
b. Blacks . . . . .	1991	78%	...	...	75%	79%	82%	---	95%
c. Low-income people . . . . .	1991	71%	...	...	71%	72%	73%	---	95%
d. American Indians/Alaska Natives . . . . .	1991	70%	...	...	85%	82%	81%	---	95%
e. Asians/Pacific Islanders . . . . .	1991	70%	...	...	71%	74%	78%	---	95%
<b>21.4 Financial barriers to receipt of clinical preventive services</b>									
Proportion without health care coverage (age adjusted)									
People under 65 years . . . . .	1989	<sup>a</sup> 15.7%	---	---	17.2%	17.3%	17.8%	---	0%
a. American Indians/Alaska Natives . . . . .	1989	<sup>a</sup> 36.1%	---	---	---	34.2%	39.0%	---	0%
b. Hispanics . . . . .	1989	<sup>a</sup> 31.3%	---	---	34.0%	34.2%	32.9%	---	0%
Mexican-Americans . . . . .	1989	<sup>a</sup> 38.1%	---	---	37.8%	39.5%	37.2%	---	0%
Puerto Ricans . . . . .	1989	<sup>a</sup> 21.4%	---	---	18.3%	21.0%	17.4%	---	0%
Cubans . . . . .	1989	<sup>a</sup> 20.7%	---	---	20.1%	16.9%	27.4%	---	0%
c. Blacks . . . . .	1989	22.0%	---	---	22.3%	23.2%	21.5%	---	0%
<b>21.5 Clinical preventive services from publicly funded programs (proportion of eligible people)</b>									
Federal programs									
Screening . . . . .	1991–92	10–100%	...	...	...	---	---	---	90%
Counseling . . . . .	1991–92	40–100%	...	...	...	---	---	---	90%
Immunizations . . . . .	1991–92	10–96%	...	...	...	---	---	---	90%
<b>21.6 Provision of recommended services by primary care providers</b>	...	---	---	---	---	---	---	---	50%
Percent of clinicians routinely providing service to 81–100% of patients									

**Table 21. Clinical preventive services objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Preventive services for children:									
Hemoglobin/hematocrit									
Pediatricians .....	1992	78%	...	...	...	---	---	---	...
Nurses .....	1992	77%	...	...	...	---	---	---	...
Family physicians .....	1992	52%	...	...	...	---	---	---	...
Eye exam (for strabismus and amblyopia)									
Pediatricians .....	1992	64%	...	...	...	---	---	---	...
Nurses .....	1992	67%	...	...	...	---	---	---	...
Family physicians .....	1992	53%	...	...	...	---	---	---	...
Blood pressure									
Pediatricians .....	1992	78%	...	...	...	---	---	---	...
Nurses .....	1992	71%	...	...	...	---	---	---	...
Family physicians .....	1992	42%	...	...	...	---	---	---	...
Height and weight									
Pediatricians .....	1992	96%	...	...	...	---	---	---	...
Nurses .....	1992	88%	...	...	...	---	---	---	...
Family physicians .....	1992	89%	...	...	...	---	---	---	...
DTP vaccination									
Pediatricians .....	1992	86%	...	...	...	---	---	---	...
Nurses .....	1992	76%	...	...	...	---	---	---	...
Family physicians .....	1992	89%	...	...	...	---	---	---	...
Oral polio vaccination									
Pediatricians .....	1992	87%	...	...	...	---	---	---	...
Nurses .....	1992	76%	...	...	...	---	---	---	...
Family physicians .....	1992	89%	...	...	...	---	---	---	...
Tetanus-diphtheria booster									
Pediatricians .....	1992	79%	...	...	...	---	---	---	...
Nurses .....	1992	71%	...	...	...	---	---	---	...
Family physicians .....	1992	70%	...	...	...	---	---	---	...
Hib vaccination									
Pediatricians .....	1992	85%	...	...	...	---	---	---	...
Nurses .....	1992	68%	...	...	...	---	---	---	...
Family physicians .....	1992	74%	...	...	...	---	---	---	...
Preventive services for adults									
Tetanus-diphtheria booster (18 years and over)									
Nurse practitioners .....	1992	38%	...	...	...	---	---	---	...
Obstetricians/gynecologists .....	1992	4%	...	...	...	---	---	---	...
Internists .....	1992	29%	...	...	...	---	---	---	...
Family physicians .....	1992	28%	...	...	...	---	---	---	...
Influenza vaccination (65 years and over)									
Nurse practitioners .....	1992	42%	...	...	...	---	---	---	...
Obstetricians/gynecologists .....	1992	6%	...	...	...	---	---	---	...
Internists .....	1992	49%	...	...	...	---	---	---	...
Family physicians .....	1992	31%	...	...	...	---	---	---	...

**Table 21. Clinical preventive services objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
Pneumococcal vaccination (65 years and over)									
Nurse practitioners . . . . .	1992	33%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	5%	...	...	...	---	---	---	...
Internists . . . . .	1992	40%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	25%	...	...	...	---	---	---	...
Blood pressure									
Nurse practitioners . . . . .	1992	82%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	88%	...	...	...	---	---	---	...
Internists . . . . .	1992	92%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	89%	...	...	...	---	---	---	...
Cholesterol level									
Nurse practitioners . . . . .	1992	45%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	36%	...	...	...	---	---	---	...
Internists . . . . .	1992	80%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	61%	...	...	...	---	---	---	...
Breast exam (by clinician)									
Nurse practitioners . . . . .	1992	78%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	92%	...	...	...	---	---	---	...
Internists . . . . .	1992	76%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	62%	...	...	...	---	---	---	...
Pap smear									
Nurse practitioners . . . . .	1992	77%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	92%	...	...	...	---	---	---	...
Internists . . . . .	1992	67%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	62%	...	...	...	---	---	---	...
Mammogram									
Nurse practitioners . . . . .	1992	63%	...	...	...	---	---	---	...
Obstetricians/gynecologists . . . . .	1992	85%	...	...	...	---	---	---	...
Internists . . . . .	1992	67%	...	...	...	---	---	---	...
Family physicians . . . . .	1992	53%	...	...	...	---	---	---	...
<b>21.7 Local health department assurance of access to essential clinical preventive services</b>									
Proportion of people served . . . . .	...	---	---	---	---	---	---	---	90%
Proportion of local health departments that:									
Assess the extent to which screening, immunization, and counseling services are provided to the local population . . . . .	1992–93	76%	...	...	...	...	---	---	...
Collect data to document the number of providers of clinical preventive services in their jurisdiction . . . . .	1992–93	45%	...	...	...	...	---	---	...
Evaluate to determine whether a gap exists between available clinical preventive services and the need for those services . . . . .	1992–93	57%	...	...	...	...	---	---	...
(Of those that assess gaps) Provide clinical preventive services to fill gaps . . . . .	1992–93	83%	...	...	...	...	---	---	...

**Table 21. Clinical preventive services objective status—Con.**

<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>21.8 Racial/ethnic minority representation in the health professions</b>									
Degrees awarded to:									
Blacks . . . . .	1985–86	5.0%	---	<sup>6</sup> 5.7%	<sup>7</sup> 5.7%	<sup>8</sup> 5.9%	<sup>9</sup> 5.9%	---	8.0%
Hispanics . . . . .	1985–86	3.0%	---	<sup>6</sup> 4.3%	<sup>7</sup> 4.8%	<sup>8</sup> 4.8%	<sup>9</sup> 4.3%	---	6.4%
American Indians/Alaska Natives . . . . .	1985–86	0.3%	---	<sup>6</sup> 0.4%	<sup>7</sup> 0.5%	<sup>8</sup> 0.4%	<sup>9</sup> 0.4%	---	0.6%
a. Enrolled in schools of nursing:									
Blacks . . . . .	<sup>7</sup> 1991–92	9.1%	...	...	...	<sup>8</sup> 8.6%	<sup>9</sup> 8.7%	---	10.0%
Hispanics . . . . .	<sup>7</sup> 1991–92	3.1%	...	...	...	<sup>8</sup> 3.0%	<sup>9</sup> 3.0%	---	4.0%
Asians/Pacific Islanders . . . . .	<sup>7</sup> 1991–92	2.9%	...	...	...	<sup>8</sup> 3.2%	<sup>9</sup> 3.3%	---	5.0%
American Indians/Alaska Natives . . . . .	<sup>7</sup> 1991–92	0.7%	...	...	...	<sup>8</sup> 0.6%	<sup>9</sup> 0.7%	---	1.0%

--- Data not available.

... Category not applicable.

<sup>a</sup>Baseline has been revised.

<sup>1</sup>Estimate based on preliminary data. Excludes mortality data from States lacking an Hispanic-origin item on their death certificate or for which Hispanic origin data were not of sufficient quality. See [appendix](#).

<sup>2</sup>Estimate derived from 1991–93 health status data and 1992 mortality data.

<sup>3</sup>Years of healthy life remaining at age 65.

<sup>4</sup>In the last 3 years for people 18–64 and in the last year for people 65 years and over.

<sup>5</sup>For people 18–64 years, a screening question on at least one of: diet, physical activity, tobacco use, alcohol use, drug use, sexually transmitted diseases, contraceptive use at a routine check-up in the last 3 years. For people 65 years and over, a screening question on at least one of: diet, physical activity, tobacco use, alcohol use at a routine check-up in the past year.

<sup>6</sup>Academic year 1990–91.

<sup>7</sup>Academic year 1991–92.

<sup>8</sup>Academic year 1992–93.

<sup>9</sup>Academic year 1993–94.

<i>Objective number</i>	<i>Data source</i>
21.1*, 21.1a–c	National Health Interview Survey, CDC, NCHS; National Vital Statistics System, CDC, NCHS.
21.2	National Health Interview Survey, CDC, NCHS.
21.3, 21.3a–e	National Health Interview Survey, CDC, NCHS.
21.4, 21.4a–c	National Health Interview Survey, CDC, NCHS.
21.5	For Community/Migrant Health Centers: Bureau of Primary Health Care Survey, HRSA, OPEL. For other publicly funded programs: Survey of Federal Programs, HRSA, OPEL.
21.6	Primary Care Provider Surveys, OASH, ODPHP.
21.7	National Profile of Local Health Departments, National Association of County and City Health Officials.
21.8	Minorities and Women in the Health Fields, HRSA, BHPR.
21.8a	National League for Nursing, Nursing Data Source.

\*Duplicate objective. See full text of objective following this table.

# Clinical Preventive Services Objectives

**21.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life (also referred to as quality-adjusted life years) is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 8.1 and 17.1

**21.1a\*:** Increase years of healthy life among blacks to at least 60 years.

Duplicate objectives: 8.1 and 17.1a

**21.1b\*:** Increase years of healthy life among Hispanics to at least 65 years.

Duplicate objectives: 8.1b and 17.1b

**21.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 years remaining.

Duplicate objectives: 8.1c and 17.1c

**21.2:** Increase the proportion of people who have received selected clinical preventive screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

Receipt of selected clinical preventive and counseling services	2000 target (percent)
---	-----------------------

Basic Immunization Series	90
---------------------------	----

Routine check-up	91
------------------	----

Cholesterol checked in last 5 years	75
-------------------------------------	----

Cholesterol ever checked	75
--------------------------	----

Cholesterol checked in last 2 years	75
-------------------------------------	----

Tetanus booster in last 10 years	62
----------------------------------	----

Pneumococcal vaccine in lifetime (aged 65 and over)	60
---	----

Influenza vaccine in last year (aged 65 and over)	60
---	----

Pap test in last 3 years	85
--------------------------	----

Breast exam and mammogram in past 2 years	60
---	----

Counseling services	80
---------------------	----

**21.3:** Increase to at least 95 percent the proportion of people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3a:** Increase to at least 95 percent the proportion of Hispanics and the proportion of Mexican-Americans who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3b:** Increase to at least 95 percent the proportion of blacks who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3c:** Increase to at least 95 percent the proportion of low-income people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3d:** Increase to at least 95 percent the proportion of American Indians and Alaska Natives who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3e:** Increase to at least 95 percent the proportion of Asians and Pacific Islanders who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.4:** Improve financing and delivery of clinical preventive services so that virtually no American has a financial barrier to receiving, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force.

**21.4a:** Decrease to 0 percent the proportion of American Indians and Alaska Natives under 65 years without health care coverage.

**21.4b:** Decrease to 0 percent the proportion of Hispanics under 65 years, and Mexican-Americans, Puerto Ricans, and Cubans under 65 years without health care coverage.

**21.4c:** Decrease to 0 percent the proportion of blacks under 65 years without health care coverage.

**21.5:** Ensure that at least 90 percent of people for whom primary care services are provided directly by publicly funded programs are offered, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force.

*NOTE: Publicly funded programs that provide primary care services directly include federally funded programs such as the Maternal and Child Health Program, Community and Migrant Health Centers, and the Indian Health Service as well as primary care service settings funded by State and local governments. This objective does not include services covered indirectly through the Medicare and Medicaid programs.*

**21.6:** Increase to at least 50 percent the proportion of primary care providers who provide their patients with the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force.

**21.7:** Increase to at least 90 percent the proportion of people who are served by a local health department that assesses and assures access to essential clinical preventive services.

*NOTE: Local health department refers to any local component of the public health system, defined as an administrative and service unit of local or State government concerned with health and carrying some responsibility for the health of a jurisdiction smaller than a State.*

**21.8:** Increase the proportion of all degrees in the health professions and allied and associated health profession fields awarded to members of underrepresented racial and ethnic minority groups as follows:

Degrees awarded to—	2000 target (percent)
Blacks	8.0
Hispanics	6.4
American Indians and Alaska Natives	0.6

**21.8a:** Increase the proportion of individuals from underrepresented racial and ethnic minority groups enrolled in U.S. schools of nursing.

Proportion enrolled in fall academic year	2000 target (percent)
Blacks	10
Hispanics	4
Asians and Pacific Islanders	5
American Indians and Alaska Natives	1

\*Duplicate objective.

# Priority Area 22 Surveillance and Data Systems

## Background

The ability to assess health status, health disparities, or service needs or to evaluate the implementation and effectiveness of preventive interventions and community health programs requires information. Public health surveillance is the systematic collection, analysis, and use of health information. This activity is essential to understanding the health status of a population and to planning effective prevention programs and interventions. The Institute of Medicine identifies surveillance as one of the core functions of public health (1). It is critical in health agencies at all jurisdictional levels: Federal, State, and local. Achievement of the year 2000 objectives depends in part on our ability to monitor and compare progress toward the objectives at all levels of government.

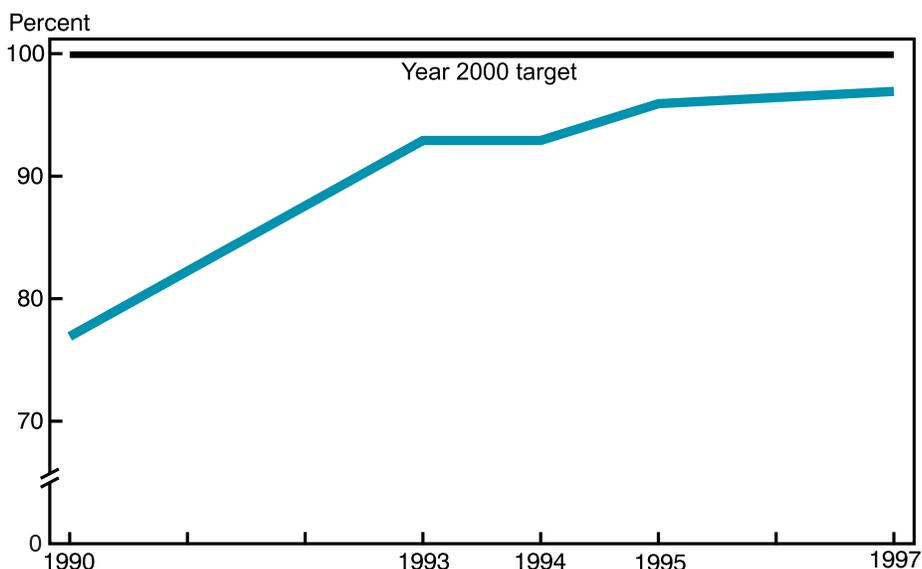
We must also be able to measure the health status of special populations. Morbidity, mortality, health behaviors, and access to and use of health services vary markedly by age, race, sex, and socioeconomic status. There are 319 *Healthy People 2000* subobjectives that are targeted toward racial and ethnic minorities, elderly people, people with chronic disabilities, people with less than a high school education, people with low incomes, and others.

Some important health issues could not be addressed in the year 2000 objectives because of the unavailability of national data to accurately characterize the problems. The lack of data at the State and local levels is of even greater concern. Thus, several objectives in Priority Area 22 are directed toward enhancing data systems in States and communities. Similarly, there are objectives that address the identification of and response to data gaps related to minorities and other special populations.

## Data Summary and Issues

The first part of objective 22.1, development of Health Status Indicators (HSI's), has been achieved. The

**Figure 23. Percent of objectives with national data sources: United States, 1990, 1993–97, and year 2000 target for objective 22.2**



	1990	1993	1994	1995	1996	1997	Year 2000 target
Objectives. . . . .	77	93	93	96	---	97	100

--- Data not available.

SOURCES: 1990 data: Office of the Assistant Secretary, Office of Disease Prevention and Health Promotion; 1993–97 data: Centers for Disease Control and Prevention, National Center for Health Statistics and Office of the Assistant Secretary, Office of Disease Prevention and Health Promotion.

consensus set of 18 indicators was published in July 1991 (2). National data for the HSI's were first published in October 1992 (3). National trends in the HSI data are shown in appendix table IV. Appendix table V presents the indicators for the major race/ethnic groups for the most recent data year. A detailed discussion of HSI differentials by race and Hispanic origin was published in September 1995 (4). The achievement of the second part of this objective, to establish use of the HSI's in at least 40 States, is being measured by tracking their use by State and local health departments. All States are monitoring some of the Health Status Indicators. At least nine States have published the HSI data for county, region, or health department district (an update of *Statistics and Surveillance* number 8) (5). A 1997 Public Health Foundation Survey will determine the number of States that have produced reports or publications based on the HSI's and have published HSI data by

race and/or ethnicity; data from this survey will also update the number of States that have published data for local areas. HSI data by State can be accessed via FTP (file transfer protocol) on the Internet at <http://www.cdc.gov/nchswww/dataawh/ftpserv/hstatus/hstatus.htm>. See the appendix for further discussion of the Health Status Indicators.

Objective 22.2 is close to being achieved with 97 percent of objectives with ongoing data sources (see figure 23). There are seven objectives for which there are no baseline data and no plans to collect monitoring data (7.12, 7.14, 7.17, 14.14, 14.16, 17.20, and 18.17). For four additional objectives (8.8, 8.11, 9.11, and 9.20), data are still expected before the year 2000. The Centers for Disease Control and Prevention (CDC) has expanded its role in supporting State assessment activities related to the year 2000 objectives. In 1997, 32 of the 44 States and the District of Columbia with

*Healthy People 2000* plans had included surveillance and data systems objectives in their plans.

Objective 22.3 has three parts: developing, disseminating, and incorporating into PHS data collection systems the procedures for collecting comparable data for each of the year 2000 national health objectives among Federal, State, and local agencies. The baseline shows the percent of objectives that are tracked with vital statistics data, which are comparable at all levels of measurement. Comparable procedures for monitoring population-based nutrition objectives among Federal surveys were included for 1992. Objectives measured by systems that have comparable data at the Federal, State, or local levels such as those monitored with the Youth Risk Behavior Survey, the Notifiable Disease Surveillance System, the Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System), and several other national systems that depend on State data were included for 1994. Objectives monitored with the National Health Interview Survey were also counted in 1994 if the State Behavioral Risk Factor Surveillance System included questions that were similar in wording and conceptual approach (some objectives, for example, physical activity and current smoking, are being monitored by the States but not with methods comparable with national methods).

The denominator for the proportion of objectives with comparable data is the total number of objectives, which underrepresents Federal-State-local objective measurement comparability. Some objectives are out of scope for the purposes of tracking objective 22.3, including most Services and Protection objectives, which do not involve traditional data collection comparability issues, although they may involve what is considered appropriate protocol. These objectives include patient education and counseling, employer- and community-based prevention programs, development and implementation of quality standards, conformance with national guidelines, and enactment of national laws. Therefore, the 1994 estimate of 21 percent is an underestimate of the actual proportion of all objectives with comparable data collection procedures.

Developing and disseminating comparable data collection procedures

involves systematically documenting the methods that are currently being used and accepted (as well as changes in measurement methods over time). For each priority area, reports are being compiled that describe how each objective is being measured at the Federal level and the relevant data issues involved. These reports are being published in the *Healthy People 2000 Statistical Notes* series. Four of these *Statistical Notes* have been published to date (see appendix [table VII](#)).

Objective 22.4 (duplicated as objective 17.22 during the midcourse review) addresses the development and implementation of a national process to identify significant gaps in the Nation's disease prevention and health promotion data. Progress is being made, although it is difficult to quantify. There are two parts to this objective: the identification of data gaps in broad areas of public health where insufficient data exist to develop objectives, and the identification of data gaps connected with special populations. First steps to identify significant gaps in broad areas of the Nation's disease prevention and health promotion data have been taken. In 1993, the National Committee on Vital and Health Statistics Subcommittee on State and Community Health Statistics recommended the development of a coordinated Federal, State, and community health statistics system that should include the following data sets in order to carry out the functions of assessment and policy development: vital statistics, in-patient hospitalization utilization, ambulatory care, long-term care, incidence and prevalence of disease and disability, health care resources, health care costs and expenditures, demographic profiles of populations served, access to basic health care and preventive services, health risk behaviors and attitudes, and environmental health risks.

The process of the *Healthy People 2000* midcourse review (6) has brought the Nation closer to achieving the latter part of objective 22.4. During the midcourse review, considerable attention was given to population groups that are at highest risk for premature death, disease, or disability, and 120 new subobjectives were proposed by the lead PHS agencies; 111 new subobjectives were eventually added (see the section on the [midcourse review](#) in the appendix). Data gaps still exist for many population groups that might be at

higher health risk than the general population, and additional steps are being taken to identify these gaps through the process of establishing objectives for 2010.

Progress toward objective 22.5, the number of States that periodically analyze and publish data needed to measure progress toward the national health objectives, is currently being assessed by the number of States that publish data from major databases including vital statistics, the Behavioral Risk Factor Surveillance System, hospital discharge systems, and the Youth Risk Behavior Survey. A national database (the Health Care Cost and Utilization Project) has been developed to build comparable hospital discharge data sets among States; in 1996, 29 States collected hospital discharge data (7). The number of States with at least one racial/ethnic group that comprises at least 10 percent of their population that publishes vital statistics data for each of these groups is also being tracked. There are 27 States whose populations included at least 10 percent racial/ethnic minorities. At least 22 of those States were publishing data for their major racial/ethnic groups in 1996.

Data to measure objective 22.6, to expand in all States systems for the transfer of year 2000 data among Federal, State, and local agencies, are available for three data systems. The National Electronic Telecommunications System for Surveillance (NETSS) is operating in all States and the District of Columbia. In 1995, the Public Health Laboratory Information System (PHLIS) became available in all States and the District of Columbia as well. DATA2000, containing tracking data for all the national *Healthy People 2000* objectives, became available in April 1995 to State and local health department personnel through the CDC WONDER system, a system actively used by all State health departments. In 1996, DATA2000 became available to all Internet users through CDC WONDER (see [appendix](#)). In 1997, State data for national *Healthy People 2000* objectives that use vital statistics data will be made available on the Internet.

Achieving the timely release of national surveillance and survey data to measure progress toward the national health objectives (22.7) is measured by percent of objectives with data released within 1 year and between 1 and 2 years

of data collection. The actual measurement of this objective involves counting the objectives that have updates for a particular year. For this year's *Healthy People 2000 Review*, data collected in 1995 or later are counted as being released within 1 year. Data for 1994 are counted as being released between 1 and 2 years of data collection.

Because all objectives are included in the denominator, the data monitoring objective 22.7 represent an underestimate of the "true" percent of objectives with timely data. Some objectives are not applicable because of achievement through legislation, leading to an underestimate of timeliness. However, the measurement of progress for this objective is more affected by the periodicity of data collection. Some objectives are tracked with data available annually, such as data from the National Vital Statistics System for objectives targeting mortality rates and the National Notifiable Disease Surveillance System for vaccine-preventable diseases (objective 20.1). Other objectives are tracked with biennial data, such as data from the Youth Risk Behavior Survey for objectives targeting adolescents. Other objectives are monitored with data from periodic surveys such as the National Health and Nutrition Examination Surveys for measures of overweight and prevalence of high blood cholesterol. For these surveys, data are counted as timely for years close to the years of data collection only, even though the data may have been released soon after collection.

6. U.S. Department of Health and Human Services. Healthy people 2000 midcourse review and 1995 revisions. Washington: Public Health Service. 1995.

7. For information on the Healthcare Cost and Utilization Project (HCUP-3), contact the Agency for Health Care Policy and Research at (301) 594-1400.

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4. Plepys C, Klein R. Health status indicators: Differentials by race and Hispanic origin. Statistical notes; no 10. Hyattsville, Maryland: National Center for Health Statistics. 1995.
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**Table 22. Surveillance and data systems objective status**

	<i>Objective</i>	<i>Baseline year</i>	<i>Baseline</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Target 2000</i>
<b>22.1</b>	<b>Health status indicators</b>									
	Develop (indicators selected) . . . . .	1991	100%	100%	100%	100%	100%	100%	100%	100%
	Establish use (number of States)									
	Monitoring some indicators . . . . .	...	---	---	---	48	<sup>1</sup> 51	151	151	40
	Providing HSI data to local health departments . . . . .	...	---	---	---	36	---	---	---	40
<b>22.2</b>	<b>National data sources</b> . . . . .	1990	77%	...	---	<sup>2</sup> 93%	<sup>3</sup> 93%	<sup>4,5</sup> 96%	<sup>6,7</sup> 97%	100%
	a. State level data for at least two-thirds of State objectives (number of States) <sup>1,8</sup> . . . . .	1995	42	...	...	...	...	...	<sup>6</sup> 45	50
<b>22.3</b>	<b>Comparable data collection procedures</b>									
	Federal, State, and local agencies . . . . .	1990	12%	...	---	14%	---	21%	---	100%
	Publication of operational definitions and sources for national data . . . . .	...	---	---	---	---	---	---	<sup>6,9</sup> 24%	...
<b>22.4*</b>	<b>Identify gaps in health data</b>									
	Establish mechanisms to meet needs <sup>10</sup> . . . . .	...	---	---	---	---	---	---	---	...
<b>22.5</b>	<b>Periodic analysis and publication of data (number of States)</b> . . . . .	1989	20	---	---	---	---	---	---	50
	Vital statistics <sup>1</sup> . . . . .	...	---	<sup>11</sup> 51	51	51	51	51	51	50
	Behavioral Risk Factor Surveillance System data <sup>1</sup> . . . . .	...	---	<sup>11</sup> 40	---	49	50	51	51	50
	Hospital discharge data <sup>12</sup> . . . . .	...	---	<sup>11</sup> 22	---	---	---	---	<sup>13</sup> 29	50
	Youth Risk Behavior Survey data . . . . .	...	---	<sup>11</sup> 24	---	---	43	---	40	50
	a. Analysis for racial and ethnic groups (number of States) <sup>1,14</sup> . . . . .	1992	<sup>15</sup> 19	...	...	...	<sup>15</sup> 23	---	<sup>9</sup> 22	25
<b>22.6</b>	<b>Number of States with data transfer systems</b> . . . . .	1989	30	---	---	---	---	---	---	50
	National Electronic Telecommunications System for Surveillance (NETSS) <sup>1</sup> . . . . .	...	---	---	---	51	51	51	51	50
	Public Health Laboratory Information System (PHLIS) . . . . .	...	---	---	---	37	<sup>14</sup> 44	<sup>15</sup> 51	<sup>15</sup> 51	50
	DATA2000 on CDC WONDER <sup>1</sup> . . . . .	...	---	---	---	---	---	---	51	50
<b>22.7</b>	<b>Timely release of national data (percent of objectives)</b>									
	Data released within 1 year of collection . . . . .	1994	65%	...	...	...	<sup>4</sup> 67%	<sup>13</sup> 46%	<sup>6</sup> 49%	100%
	Data released between 1–2 years of collection . . . . .	1994	24%	...	...	...	<sup>4</sup> 24%	<sup>13</sup> 16%	<sup>6</sup> 18%	...

--- Data not available.

... Category not applicable.

<sup>1</sup>Includes the District of Columbia.

<sup>2</sup>1993 data.

<sup>3</sup>1994 data.

<sup>4</sup>1995 data.

<sup>5</sup>Number of objectives changes from 300 to 319 during the midcourse review.

<sup>6</sup>1997 data.

<sup>7</sup>Eleven of 319 objectives have no baseline; there are no plans for data collection for 7 of these objectives.

<sup>8</sup>States that have adopted *Healthy People 2000* plans.

<sup>9</sup>Four of 21 Statistical Notes have been published; 1 is in preparation. See appendix [table VII](#).

<sup>10</sup>See text for a discussion of this objective.

<sup>11</sup>1989 data.

<sup>12</sup>States that collect hospital discharge data. The number of States with legislative mandates to collect hospital discharge data was 39 in 1993 and in 1995.

<sup>13</sup>1996 data.

<sup>14</sup>Twenty-seven States have at least one racial/ethnic group comprising at least 10 percent of their population; data show number of States that published vital statistics data for these racial/ethnic groups.

<sup>15</sup>Number of all States that published vital statistics data for racial/ethnic groups; racial/ethnic groups may comprise less than 10 percent of State population.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

<i>Objective Number</i>	<i>Data Source</i>
22.1	CDC, NCHS.
22.2, 22.2a	Baseline: National data: OPHS, ODPHP; State data: Public Health Foundation. Updates: CDC, NCHS; OPHS, ODPHP.
22.3	CDC, NCHS.
22.4*	Subcommittee on State and Community Health Statistics, NCVHS; CDC, NCHS; OPHS, ODPHP.
22.5	1989 Baseline: Public Health Foundation. 1989–96 Data: Vital statistics: CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS): CDC, NCCDPHP; Hospital discharge data: National Association of Health Data Organizations; Youth Risk Behavior Survey (YRBS): CDC, NCCDPHP.
22.5a	CDC, NCHS.
22.6	1989 Data: Public Health Foundation. Updates: NETSS: CDC, EPO. PHLIS: CDC, NCID. CDC WONDER: CDC, IRMO and CDC, NCHS.
22.7	CDC, NCHS.

\*Duplicate objective. See full text of objectives following this table.

# Surveillance and Data Systems Objectives

**22.1:** Develop a set of health status indicators appropriate for Federal, State, and local health agencies, and establish use of the set in at least 40 States.

**22.2:** Identify, and create where necessary, national data sources to measure progress toward each of the year 2000 national health objectives.

**22.2a:** Identify, and create where necessary, State-level data for at least two-thirds of the objectives in State year 2000 plans in all 50 States.

**22.3:** Develop and disseminate among Federal, State, and local agencies procedures for collecting comparable data for each of the year 2000 national health objectives and incorporate these into Public Health Service data collection systems.

**22.4\*:** Develop and implement a national process to identify significant gaps in the Nation's disease prevention and health promotion data, including data for racial and ethnic minorities, people with low incomes, and people with disabilities, and establish mechanisms to meet these needs.

*NOTE: Disease prevention and health promotion data include disease status, risk factors, and services receipt data. Public health problems include such issue areas as HIV infection, domestic violence, mental health, environmental health, occupational health, and disabling conditions.*

Duplicate objective: 17.22

**22.5:** Implement in all States periodic analysis and publication of data needed to measure progress toward objectives for at least 10 of the priority areas of the national health objectives.

*NOTE: Periodic is at least once every 4 years. Objectives include, at a minimum, one from each objectives category: health status, risk reduction, and services and protection.*

**22.5a:** Implement in 25 States periodic analysis and publication of data needed to measure State progress toward the national or

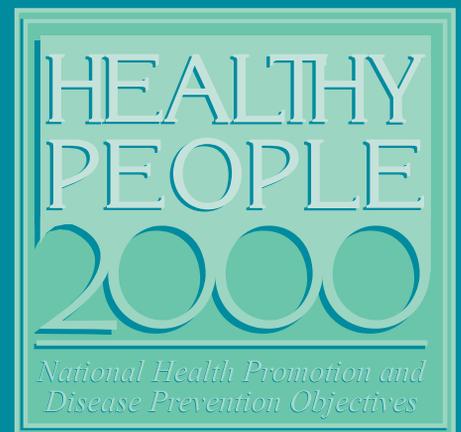
State-specific health objectives for each racial or ethnic group that makes up at least 10 percent of the State population.

**22.6:** Expand in all States systems for the transfer of health information related to the national health objectives among Federal, State, and local agencies.

*NOTE: Information related to the national health objectives includes State and national level baseline data, disease prevention and health promotion evaluation results, and data generated to measure progress.*

**22.7:** Achieve timely release of national surveillance and survey data needed by health professionals and agencies to measure progress toward the national health objectives.

*NOTE: Timely release (publication of provisional or final data or public-use data tapes) should be based on the use of the data, but is at least within one year of the end of data collection.*



# *Appendix*

# Appendix

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# Appendix

## Midcourse Modifications

The midcourse review of *Healthy People 2000* was a 2-year process, announced in fall 1993 and culminating in the publication of the *Healthy People 2000 Midcourse Review and 1995 Revisions* (1), in fall 1995. PHS workgroups met to consider new data, new information, and new science that had become available since the release of *Healthy People 2000* in 1990. In the resulting draft of the proposed midcourse revisions (2) announced in the *Federal Register* on October 3, 1994, for public review and comment, there were no changes to the three goals of *Healthy People 2000* nor to the organization of the 22 priority areas. The changes that were proposed included:

- New objectives that reflect scientific developments, new policy initiatives, or new information that has become available
- New duplicates of existing objectives, shared across priority areas in recognition of the interrelationships among health issues
- Revisions to language in existing objectives to make them more understandable, to encompass current issues, and to reflect changes in data reporting systems
- New special population targets to focus on groups that are at highest risk of premature death, disease, or disability
- Revisions to year 2000 targets to make them more challenging

More than 550 public comments were received on the proposed midcourse revisions. These public comments were used by the PHS agencies to complete the revised Summary List of Objectives that includes the new objectives, modifications to existing objectives, new special population subobjectives, and the target revisions (1). All midcourse modifications were coordinated and edited by the PHS Office of Disease Prevention and Health Promotion.

As a result of the review process, 19 new objectives were added to the original 300 unduplicated main objectives, bringing the total number of objectives to 319. Additional data that showed increased health risk or disparity between the total population and people

in age, sex, racial, or ethnic minority groups resulted in the addition of 111 new special population subobjectives (bringing the total number of subobjectives to 319). Including the midcourse changes, *Healthy People 2000* now contains a total of 638 objectives and subobjectives; because some priority areas share identical objectives, the number of objectives and subobjectives including duplicates is 805.

There were 58 target revisions (29 objectives and 29 subobjectives), in almost all cases to make the target more challenging. Text changes were made to 75 existing objectives, in some cases considerably modifying the objective. All midcourse review modifications are detailed in *Statistical Note* No. 13 (3) (see appendix [table VII](#)).

The midcourse modifications established baselines for all *Healthy People 2000* objectives for which data were available. Most of these baselines are the same as those established in the original *Healthy People 2000* report (4); others reflect revisions to the original baselines or are newly created. This *Review* tracks progress for all the objectives contained in the *Midcourse Review and 1995 Revisions* report using the midcourse review baselines and the most recent data available. About 50 baselines have been revised from those published in the midcourse review report; these changes are denoted by a footnote “a” in each priority area summary table.

## Special Population Subobjectives

Special population subobjectives address disparities and differing trends in health measures for subpopulation groups as compared with the total U.S. population. The guidelines for drafting the subobjectives suggested the identification of a data source to track progress before a subobjective for a minority or special population could be set. A lack of data sources prevented the establishment of subobjectives for some population groups even when disparities were suspected.

Many subpopulations are small and geographically clustered and cannot be adequately measured through national surveys using standard sampling techniques. Developing techniques to assess the health of minorities and other

special subpopulations is a significant challenge during this decade. However, the addition of the special population subobjectives during the midcourse review indicates that some improvements in data availability have been made.

## Geographic Coverage

Data used to track the *Healthy People 2000* objectives are, where available, for the 50 States and the District of Columbia. In cases where complete U.S. data are not available, subnational data (if they exist) are used as a proxy. For all objectives, data for U.S. Territories are excluded.

## Age Adjustment

Most of the baselines and monitoring data for the population-based *Healthy People 2000* mortality objectives are derived from the National Vital Statistics System (NVSS) and are age adjusted to the 1940 population (see appendix [table III](#)). Exceptions are objectives 4.1, 9.3 (except 9.3d), 10.1, and 10.16. Data for 4.1 and 9.3 (except 9.3d) are crude rates from the National Highway and Traffic Safety Administration’s Fatality and Analysis Reporting System (formerly the Fatal Accident Reporting System) (FARS). Data for 10.1 are crude rates from the Department of Labor’s Annual Survey of Occupational Injuries and Illnesses and Census of Fatal Occupational Injuries. Baseline data for 10.16, a new objective, are crude rates from the National Traumatic Occupational Fatality Surveillance System, Centers for Disease Control and Prevention (CDC). Update data are crude rates from the Census of Fatal Occupational Injuries.

## Data Source Comparability

For some objectives the baseline data source differs from the source used to monitor progress. Comparability between different data sources or even within the same data source for different years is not assured. Comparability can be compromised by changes in survey questions, survey systems, survey methodology, operational definitions, and analytic techniques. Some of the most important comparability issues related to specific objectives are

discussed in the Data Issues section of the priority area chapters. Other issues related to tracking the objectives are addressed in *Healthy People 2000 Statistical Notes* Number 4, Issues Related to Monitoring the Year 2000 Objectives (5). The data source for each *Healthy People 2000* objective is shown at the end of the summary data table in each priority area chapter.

## Cause-of-Death Terminology and Codes

Twenty-six objectives (excluding duplicates) in *Healthy People 2000* are tracked using mortality data. For most of these objectives, the cause-of-death terminology used in *Healthy People 2000* is different from that used in *Health, United States; Vital Statistics of the United States, Mortality*, and other National Center for Health Statistics (NCHS) publications; in some cases, the *Ninth Revision International Classification of Diseases (ICD-9)* codes are different as well (6) (Appendix [table III](#)).

For five objectives, the terminology and the codes are different from those used for similar cause-of-death categories in NCHS publications. One example, objective 7.1, concerns reduction of homicides. Progress toward this objective is measured using ICD-9 codes E960-E969. NCHS generally uses "Homicide and legal intervention" (ICD-9 codes E960-E978), which includes "legal intervention," or "police action." For 14 objectives, only the terminology differs; the defining ICD-9 identifying codes are the same. For example, objective 15.2 calls for reduction in mortality from "stroke"; NCHS tabulation lists use the term "Cerebrovascular diseases" (both use ICD-9 numbers 430-438). Only one objective, suicide, has the same title and the same code structure in both uses. The remaining six mortality objectives have no comparable category in NCHS publications. With the exception of heart disease, the differences between mortality rates defined by the *Healthy People 2000* ICD-9 categories and those defined by NCHS rubrics are relatively small, if not trivial.

## Hispanic Vital Statistics

There are nine subobjectives targeting mortality reduction for

Hispanic populations (4.2c, 4.3b, 7.1d, 9.1d, 9.3g, 9.6g, 16.4b, 17.9c, and 17.9d). For objective 7.1d, the only subobjective with pre-1990 data, the 1987-89 baseline and tracking data are based on deaths to residents of selected States that had data that were at least 90 percent complete on a place-of-occurrence basis and considered to be sufficiently comparable. Beginning with data for 1990 for all Hispanic subobjectives, the criterion was changed to include States with data that were at least 80 percent complete. The number of States in the mortality reporting area increased from 18 States and the District of Columbia in 1987 to 49 States and the District of Columbia in 1993.

Hispanic origin data for prenatal care in the first trimester (14.11c) are based on States that reported Hispanic parentage on the birth certificate. The number of States in the natality reporting area increased from 23 States and the District of Columbia in 1987 to all 50 States and the District of Columbia in 1993. The reporting area for infant mortality data from the national linked file of live births and infant deaths for Puerto Ricans (14.1c, f, and j) increased from 23 States and the District of Columbia in 1984 to 49 States and the District of Columbia in 1991. A listing of the States included in the reporting areas for each year and more information can be found in another publication (7).

## Mortality Data by Race

The racial groups—white, black, American Indian or Alaska Native, and Asian or Pacific Islander—include persons of Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race. Consistency of race and Hispanic origin identification between the death certificate (source of data for the numerator of death rates) and self-reported population data from the Census Bureau (source of denominators for death rates) or birth certificates (denominators for infant mortality rates) is high for individual white and black persons. However, persons self-identified as American Indian or Alaska Native, Asian or Pacific Islander, or Hispanic in Census data or birth certificates are sometimes misclassified on the death certificate. Therefore, death rates for subobjectives targeting these groups may be underestimated by 22-30

percent for American Indians or Alaska Natives, by about 12 percent for Asians or Pacific Islanders, and 7 percent for Hispanics (8).

Racial/ethnic classification for infant deaths is substantially improved by using the linked birth and infant death file, which uses the race of the mother as self-reported on the birth certificate instead of the race of child as reported on the death certificate. The infant mortality rates for Puerto Ricans and American Indians and Alaska Natives shown in objectives 14.1b,c,f,i,j used data from the linked file.

## Years of Healthy Life

Increasing years of healthy life is one of the three *Healthy People 2000* goals and is included as three specific objectives (8.1, 17.1, and 21.1). The *Healthy People 2000* years of healthy life (HP2000-YHL) measure, which will be used to monitor progress until the year 2000, combines mortality data from the National Vital Statistics System with self-reported health status data from the National Health Interview Survey. The methodology for the HP2000-YHL measure, developed by NCHS and outside consultants, is published in *Healthy People 2000 Statistical Notes* Number 7, Years of Healthy Life (9).

## Census Poverty Threshold

Data for subobjectives targeting family income below the poverty level are based on definitions originally developed by the Social Security Administration. They include a set of money-income thresholds that vary by family size and composition. Families or individuals with income below the appropriate thresholds are classified as below the poverty level. These thresholds are updated annually by the U.S. Bureau of the Census. The weighted-average poverty threshold for a family of four was \$14,335 in 1992, \$14,764 in 1993, \$15,141 in 1994, and \$15,569 in 1995 (10).

## Age-Related Objectives

Embraced as broad national goals in 1990 for improving the health of Americans at the five major life stages (11), *Healthy People 2000* also includes targets for reducing deaths among

people under age 65, and for reducing the proportion of people 65 years and over who have difficulty performing two or more activities of daily living. *Healthy People 2000* contains four age-related objectives, listed below. Appendix [table VI](#) shows the latest data for these objectives.

- Reduce the death rate for children by 15 percent to no more than 28 per 100,000 children age 1–14 years, and for infants by approximately 30 percent to no more than 7 per 1,000 live births.
- Reduce the death rate for adolescents and young adults by 15 percent to no more than 85 per 100,000 people age 15–24 years.
- Reduce the death rate for adults by 20 percent to no more than 340 per 100,000 people age 25–64 years.
- Reduce to no more than 90 per 1,000 people the proportion of all people age 65 years and over who have difficulty in performing two or more personal care activities (a reduction of about 19 percent), thereby preserving independence.

## Health Status Indicator Definitions

In July 1991, CDC released a set of 18 health status indicators (12) and encouraged their use by Federal, State, and local health agencies. The indicators were developed in response to objective 22.1 of *Healthy People 2000* (4) through a consensus process (13). The health status indicator (HSI) definitions are discussed in detail in *Statistical Note* number 3, “Health Status Indicators: Definitions and National Data” (14).

The *International Classification of Diseases, Ninth Revision* (6) (ICD–9) code definitions recommended for most of the mortality indicators are taken from established NCHS cause-of-death tabulations. In some cases, these definitions differ from those used to track similar objectives in *Healthy People 2000*. There are three HSI’s similar to *Healthy People 2000* objectives that use different ICD–9 codes. These HSI’s are: homicides (objective 7.1), lung cancer deaths (objectives 3.2 and 16.2), and heart disease deaths (objectives 1.1, 3.1, and 15.1). Please refer to appendix [tables III, IV, and V](#) for exact codes.

The rate of the reported incidence of AIDS is measured by date of diagnosis for the HSI and for objective

18.1. However, the HSI rate is adjusted for delays in reporting only, while the objective 18.1 rate is adjusted for underreporting as well as delays in reporting.

The data source for the HSI and for objective 10.1 for work-related injury deaths is the Census of Fatal Occupational Injuries, Bureau of Labor Statistics, Department of Labor. However, the HSI rate is for the total population 16 years of age and over and the denominator is obtained from the Bureau of the Census; for objective 10.1, the rate is for full-time workers 16 years of age and over and the denominator is provided by the Bureau of Labor Statistics.

Two HSI measures use the same methodology but are the converse of their associated *Healthy People 2000* objectives. All HSI’s were defined so that the higher rate or percent would be an indicator of poorer health status. The HSI for prenatal care is measured by the proportion of mothers delivering live infants who did *not* receive care during the first trimester of pregnancy, while objective 14.11 is to increase the proportion of all pregnant women who received prenatal care in the first trimester of pregnancy. Similarly, the HSI for air quality is measured by the proportion of people living in counties exceeding U.S. Environmental Protection Agency (EPA) standards for air quality during the previous year, while objective 11.5 is measured by the proportion of people who live in counties that have *not* exceeded any EPA standard for air quality in the past year.

## Additional Sources of Monitoring Data and Information

Access to *Healthy People 2000* monitoring data and information about the data is not confined to the *Healthy People 2000 Review*. All tracking data are contained in the DATA2000 Monitoring System, an electronic database that contains the national baseline and monitoring data for each *Healthy People 2000* objective and special population subobjective. DATA2000 is a component of the CDC WONDER system, the Centers for Disease Control and Prevention’s on-line public health information system. It contains the full text of each

of the 805 objectives and subobjectives, all tracking data available from baseline to latest update, information on the data such as definitions and clarifications, and the data sources that are being used to track progress. Monitoring data for States as well as national data are available for the HSI under “priority area 23.” Age-related objectives are tracked under “priority area 24.” DATA2000 can be accessed through the CDC WONDER/PC database and on the Internet at <http://wonder.cdc.gov>.

Other relevant Internet sites include the following:

- The *Healthy People 2000* home page (<http://odphp.osophs.dhhs.gov/pubs/hp2000>): Contains connections to many activities related to *Healthy People 2000* including lead agency contacts for the priority areas, progress review reports, the *Healthy People 2000* consortium, and more.
- The National Health Information Center (NHIC) home page (<http://nhic-nt.health.org>): Serves as a health information referral service that enables health professionals and consumers who have health questions to contact organizations that are best able to provide answers. Many documents related to *Healthy People 2000* can be located at this site. NHIC was established in 1979 by the Office of Disease Prevention and Health Promotion (ODPHP), Office of Public Health and Science, Office of the Secretary, U.S. Department of Health and Human Services.
- The National Center for Health Statistics home page (<http://www.cdc.gov/nchswww/nchshome.htm>): Provides statistical information on vital events as well as information on health status, lifestyle and exposure to unhealthy influences, the onset and diagnosis of illness and disability, and the use of health care. NCHS publications, including the full text of the *Healthy People 2000 Reviews* are located at <http://www.cdc.gov/nchswww/products/pubs/pubd/hp2k/hp2k.htm>. They are presented in Acrobat (tm) .PDF file format and may be viewed or downloaded directly from this site. State HSI data (<http://www.cdc.gov/nchswww/datawh/ftpserv/hstatus/hstatus.htm>) can be downloaded via FTP (file transfer protocol).
- A valuable resource for public health professionals wishing to measure and track data comparable to the national *Healthy People 2000* objectives

is presented as a series of publications entitled *Healthy People 2000 Statistical Notes*. This series contains information on the Health Status Indicators, monitoring issues, operational definitions, and other issues related to tracking the *Healthy People 2000* objectives. For a list of these publications, see appendix [table VII](#). The full text of *Healthy People 2000 Statistical Notes* Numbers 6 through the present can be found on the Internet at <http://www.cdc.gov/nchswww/products/pubs/pubd/hp2k/hp2k.htm>.

■ The National Center for Health Statistics also presents an annual course entitled “Measuring the Healthy People 2000 Objectives” through the Applied Statistics Training Institute (ASTI). This course, presented free of charge to health professionals and others working in areas of public health in Government agencies and private organizations, addresses specific measurement issues related to monitoring progress toward selected *Healthy People 2000* objectives and health status indicators. A number of objectives that present unusual problems or require the use of complex algorithms are discussed (for example, years of healthy life; light, moderate, and vigorous physical activity; overweight prevalence; and air quality). Data comparability, the *International Classification of Disease* (ICD) codes for mortality data, computation of age-adjusted death rates, and a demonstration of the statistical data on the Internet (including DATA2000) are also included. For more information on ASTI, contact Sheldon Starr at the National Center for Health Statistics, (301) 436–7063, extension 128.

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**Table I. Priority area lead agencies**

<i>Priority area</i>	<i>Lead agency</i>
1 Physical activity and fitness	President's Council on Physical Fitness and Sports
2 Nutrition	National Institutes of Health Food and Drug Administration
3 Tobacco	Centers for Disease Control and Prevention
4 Substance abuse: alcohol and other drugs	Substance Abuse and Mental Health Services Administration
5 Family planning	Office of Population Affairs
6 Mental health and mental disorders	Substance Abuse and Mental Health Services Administration and the National Institutes of Health
7 Violent and abusive behavior	Centers for Disease Control and Prevention
8 Educational and community-based programs	Centers for Disease Control and Prevention Health Resources and Services Administration
9 Unintentional injuries	Centers for Disease Control and Prevention
10 Occupational safety and health	Centers for Disease Control and Prevention
11 Environmental health	National Institutes of Health Centers for Disease Control and Prevention
12 Food and drug safety	Food and Drug Administration
13 Oral health	National Institutes of Health Centers for Disease Control and Prevention
14 Maternal and infant health	Health Resources and Services Administration
15 Heart disease and stroke	National Institutes of Health
16 Cancer	National Institutes of Health
17 Diabetes and chronic disabling conditions	National Institutes of Health Centers for Disease Control and Prevention
18 HIV infection	Centers for Disease Control and Prevention
19 Sexually transmitted diseases	Centers for Disease Control and Prevention
20 Immunization and infectious diseases	Centers for Disease Control and Prevention
21 Clinical preventive services	Health Resources and Services Administration Centers for Disease Control and Prevention
22 Surveillance and data systems	Centers for Disease Control and Prevention

**Table II. Healthy People 2000 data source acronyms**

<i>Acronyms</i>	<i>Agency/Organization</i>
ACS	American Cancer Society
AHA	American Hospital Association
AIRS	Aerometric Information Retrieval System
ALA	American Lung Association
ATSDR	Agency for Toxic Substances and Disease Registry
BHP	Bureau of Health Professions
BJS	Bureau of Justice Statistics
BLS	Bureau of Labor Statistics
CDC	Centers for Disease Control and Prevention
CFSAN	Center for Food Safety and Applied Nutrition
CPSC	Consumer Product Safety Commission
CSAT	Center for Substance Abuse Treatment
DoD	Department of Defense
DOJ	Department of Justice
DOL	Department of Labor
DOT	Department of Transportation
EPA	Environmental Protection Agency
EPO	Epidemiology Program Office
FARS	Fatality and Analysis Reporting System
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Administration
GAO	Government Accounting Office
HAZDAT	Hazardous Substance Release and Health Effects Database
HCFA	Health Care Financing Administration
HRSA	Health Resources and Services Administration
IHS	Indian Health Service
IRMO	Information Resources Management Office
NCCAN	National Center for Child Abuse and Neglect
NCCDPHP	National Center for Chronic Disease Prevention and Health Promotion
NCEH	National Center for Environmental Health
NCHS	National Center for Health Statistics
NCHSR	National Center for Health Services Research
NCHSTP	National Center for HIV, STD, and TB Prevention
NCI	National Cancer Institute
NCID	National Center for Infectious Disease
NCIPC	National Center for Injury Prevention and Control
NCPS	National Center for Prevention Services
NCVHS	National Committee on Vital and Health Statistics
NHLBI	National Heart, Lung, and Blood Institute
NHTSA	National Highway Traffic Safety Administration
NIAAA	National Institute on Alcoholism and Alcohol Abuse
NICHD	National Institute for Child Health and Human Development
NIDA	National Institute on Drug Abuse
NIDR	National Institute of Dental Research
NIH	National Institutes of Health
NIMH	National Institute for Mental Health
NIOSH	National Institute for Occupational Safety and Health
NIP	National Immunization Program
NSBA	National School Boards Association
OAR	Office of Air and Radiation
OAS	Office of the Assistant Secretary
OASD	Office of the Assistant Secretary of Defense
OASH	Office of the Assistant Secretary of Health
ODPHP	Office of Disease Prevention and Health Promotion
OPA	Office of Population Affairs
OPEL	Office of Planning, Evaluation, and Legislation
OPHS	Office of Public Health and Science
OPPTS	Office of Pollution, Prevention, and Toxic Substances
ORA	Office of Research and Analysis

**Table II. Healthy People 2000 data source acronyms—Con.**

<i>Acronyms</i>	<i>Agency/Organization</i>
OSH .....	Office of the Secretary of Health
OSHA .....	Occupational Safety and Health Administration
OSWER .....	Office of Solid Waste Enforcement and Remediation
PHF .....	Public Health Foundation
PHS .....	Public Health Service
SAMHSA .....	Substance Abuse and Mental Health Services Administration
USDA .....	United States Department of Agriculture

**Table III. Mortality objective cause-of-death categories**

Objective Number	Healthy People 2000		Mortality tabulation lists	
	Cause of death <sup>1</sup>	ICD-9 identifying codes	Cause of death	ICD-9 identifying codes
1.1	Coronary heart disease	402, 410-414, 429.2	Diseases of heart	390-398, 402, 404-429
2.1	See 1.1			
2.2	Cancer (all sites) of lymphatic hematopoietic tissues	140-208	Malignant neoplasms, including neoplasms	(Same as HP2000)
2.22	Stroke	430-438	Cerebrovascular diseases	(Same as HP2000)
2.23	Colorectal cancer	153.0-154.3, 154.8, 159.0	Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus	153, 154
3.1	See 1.1			
3.2	Lung cancer	162.2-162.9	Malignant neoplasms of trachea, bronchus and lung	162
3.3	Chronic obstructive pulmonary disease and allied conditions	490-496	Chronic obstructive pulmonary diseases	(Same as HP2000)
3.17	Cancer of the oral cavity and pharynx	140-149	Malignant neoplasms of lip, oral cavity, and pharynx	(Same as HP2000)
3.18	See 2.22			
4.1	Alcohol-related motor vehicle crashes	E810-E819 <sup>2</sup>	No comparable category	...
4.2	Cirrhosis	571	Chronic liver disease and cirrhosis	(Same as HP2000)
4.3	Drug-related deaths	292, 304, 305.2-305.9, E850-E858, E950.0-E950.5, E962.0, E980.0-E980.5	Drug-induced causes	(Same as HP2000)
6.1	Suicides	E950-E959	(Same as HP2000)	(Same as HP2000)
7.1	Homicides	E960-E969	Homicide and legal intervention	E960-E978
7.2	See 6.1			
7.3	Firearm injuries	E922.0-E922.3, E922.8-E922.9, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4	No comparable category	...
9.1	Unintentional injuries	E800-E949	Accidents and adverse effects	(Same as HP2000)
9.3, 9.3a-c	Motor vehicle crashes	E810-E819	Motor vehicle traffic accidents	(Same as HP2000)
9.3d,g	Motor vehicle crashes	E810-E825	Motor vehicle accidents	(Same as HP2000)
9.4	Falls and fall-related injuries	E880-E888	Accidental falls	(Same as HP2000)
9.5	Drowning	E830, E832, E910	Accidental drowning and submersion	E910
9.6	Residential fires	E890-E899	Accidents caused by fire and flames	(Same as HP2000)
9.23	See 4.1			
10.1	Work-related injuries <sup>3</sup>	E800-E999	No comparable category	...
10.16	Work-related homicides	E960-E969	No comparable category	...
10.17	Occupational lung diseases <sup>3</sup>	500-502, 504	No comparable category	...
13.7	See 3.17			
14.3	Maternal mortality	630-676	Complications of pregnancy, childbirth, and the puerperium or maternal mortality	(Same as HP2000)
15.1	See 1.1			

**Table III. Mortality objective cause-of-death categories—Con.**

<i>Objective Number</i>	<i>Healthy People 2000</i>		<i>Mortality tabulation lists</i>	
	<i>Cause of death<sup>1</sup></i>	<i>ICD–9 identifying codes</i>	<i>Cause of death</i>	<i>ICD–9 identifying codes</i>
15.2	See 2.22			
16.1	See 2.2			
16.2	See 3.2			
16.3	Breast cancer in women	174	Malignant neoplasm of female breast	(Same as HP2000)
16.4	Cancer of the uterine cervix	180	Malignant neoplasm of cervix uteri	(Same as HP2000)
16.5	See 2.23			
16.17	See 3.17			
17.9	Diabetes-related deaths <sup>3</sup>	250	Diabetes mellitus	(Same as HP2000)
20.2	Epidemic-related pneumonia and influenza deaths for ages 65 and over	480–487	No comparable category	...

... Category not applicable.

<sup>1</sup>Unless otherwise specified, Healthy People 2000 uses underlying cause-of-death data.

<sup>2</sup>Includes only those deaths assigned to E810–E819 that were alcohol-related; see Priority Area 4, Substance Abuse: Alcohol and Other Drugs.

<sup>3</sup>Healthy People 2000 uses multiple-cause-of-death data.

**Table IV. Health Status Indicators: United States, 1993–95**

<i>Health status indicators</i>		1993	1994	1995
<b>1</b>	<b>Race/ethnicity-specific infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under 1 year of age</b> . . . . .	8.4	8.0	7.6
	White . . . . .	6.8	6.6	6.3
	Black . . . . .	16.5	15.8	15.1
	American Indian <sup>1</sup> . . . . .	<sup>2</sup> 11.3	---	---
	Chinese <sup>1</sup> . . . . .	24.6	---	---
	Japanese <sup>1,3</sup> . . . . .	45.3	---	---
	Filipino <sup>1</sup> . . . . .	25.1	---	---
	Hawaiian and part-Hawaiian <sup>1,3</sup> . . . . .	49.0	---	---
	Other Asian or Pacific Islander <sup>1</sup> . . . . .	26.3	---	---
	Hispanic origin <sup>1,5</sup> . . . . .	<sup>2,6</sup> 7.1	7.6	7.1
<b>2</b>	<b>Total deaths per 100,000 population (ICD–9 nos. 0–E999)<sup>7</sup></b> . . . . .	513.3	508.4	503.9
<b>3</b>	<b>Motor vehicle crash deaths per 100,000 population (ICD–9 nos. E810–E825)<sup>7</sup></b> . . . . .	16.0	16.1	16.3
<b>4</b>	<b>Work-related injury deaths per 100,000 population<sup>8</sup></b> . . . . .	3.2	3.3	3.0
<b>5</b>	<b>Suicides per 100,000 population (ICD–9 nos. E950–E959)<sup>7</sup></b> . . . . .	11.3	11.2	11.2
<b>6</b>	<b>Homicides per 100,000 population (ICD–9 nos. E960–E978)<sup>7</sup></b> . . . . .	10.7	10.1	9.4
<b>7</b>	<b>Lung cancer deaths per 100,000 population (ICD–9 no. 162)<sup>7</sup></b> . . . . .	39.3	38.7	38.3
<b>8</b>	<b>Female breast cancer deaths per 100,000 women (ICD–9 no. 174)<sup>7</sup></b> . . . . .	21.5	21.3	21.0
<b>9</b>	<b>Cardiovascular disease deaths per 100,000 population (ICD–9 nos. 390–448)<sup>7</sup></b> . . . . .	181.8	176.8	174.9
	Heart disease deaths per 100,000 population (ICD–9 nos. 390–398, 402, 404–429) <sup>7</sup> . . . . .	145.3	140.0	138.3
	Stroke deaths per 100,000 population (ICD–9 nos. 430–438) <sup>7</sup> . . . . .	26.5	26.5	26.7
<b>10</b>	<b>Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome<sup>9</sup></b> . . . . .	29.7	26.9	25.7
<b>11</b>	<b>Reported incidence (per 100,000 population) of measles</b> . . . . .	0.1	0.4	0.1
<b>12</b>	<b>Reported incidence (per 100,000 population) of tuberculosis</b> . . . . .	9.8	9.4	8.7
<b>13</b>	<b>Reported incidence (per 100,000 population) of primary and secondary syphilis</b> . . . . .	10.4	8.1	6.3
<b>14</b>	<b>Prevalence of low birthweight as measured by the percentage of live-born infants weighing under 2,500 grams at birth</b> . . . . .	7.2	7.3	7.3
<b>15</b>	<b>Births to adolescents (ages 10–17 years) as a percentage of total live births</b> . . . . .	5.1	5.3	5.3
<b>16</b>	<b>Prenatal care as measured by the percentage of mothers delivering live infants who did not receive care during the first trimester of pregnancy</b> . . . . .	21.1	19.8	18.7
<b>17</b>	<b>Childhood poverty, as measured by the proportion of children under 15 years of age living in families at or below the poverty level</b>			
	Under 18 years . . . . .	22.7	21.8	20.8
	Under 15 years . . . . .	23.4	22.5	21.5
	5–17 years <sup>10</sup> . . . . .	20.8	20.1	19.0
<b>18</b>	<b>Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year<sup>11</sup></b> . . . . .	23.5	24.9	32.9

NOTE: Definitions for some of the health status indicators differ from those used to track similar *Healthy People 2000* objectives. See [appendix](#).

--- Data not available.

<sup>1</sup>Linked file data source.

<sup>2</sup>1991 data.

<sup>3</sup>Infant mortality rates for groups with fewer than 10,000 births are considered unreliable.

<sup>4</sup>1989–91 data.

<sup>5</sup>Includes mothers of all races.

<sup>6</sup>Includes 49 States and the District of Columbia in 1991.

<sup>7</sup>Age adjusted to the 1940 standard population.

<sup>8</sup>Data are for people 16 years of age and over.

<sup>9</sup>Rates are by date of diagnosis. They are adjusted for delays in reporting; they are not adjusted for underreporting.

<sup>10</sup>Related children in families.

<sup>11</sup>Data are based on 1990 county population estimates.

<i>Indicator</i>	<i>Data Source</i>
1–3, 5–9, 14–16 . . . . .	National Vital Statistics System, CDC, NCHS.
4 . . . . .	Census of Fatal Occupational Injuries, Department of Labor, Bureau of Labor Statistics.
10 . . . . .	AIDS Surveillance System, CDC, NCID. Data represent AIDS cases reported by year of diagnosis, adjusted for reporting delays. Based on cases reported to CDC through March 1996.
11 . . . . .	National Notifiable Disease Surveillance System, CDC, EPO.
12 . . . . .	Tuberculosis Morbidity Data, CDC, NCPS.
13 . . . . .	Sexually Transmitted Disease Surveillance System, CDC, NCPS.
17 . . . . .	Current Population Survey, U.S. Bureau of the Census.
18 . . . . .	National Air Quality and Emission Trends Report, Office of Air and Radiation, U.S. Environmental Protection Agency.

**Table V. Health Status Indicators by race and Hispanic origin: United States, 1995**

Health status indicators	Race					
	Total <sup>1</sup>	White	Black	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic Origin <sup>2</sup>
<b>1 Race/ethnicity-specific infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under 1 year of age</b> . . . . .	7.6	6.3	15.1	<sup>3</sup> 11.3	<sup>3</sup> 5.8	<sup>3,4</sup> 7.1
<b>2 Total deaths per 100,000 population (ICD-9 nos. 0-E999)<sup>5</sup></b> . . . . .	503.9	476.9	765.7	468.5	298.9	---
<b>3 Motor vehicle crash deaths per 100,000 population (ICD-9 nos. E810-E825)<sup>5</sup></b> . . . . .	16.3	16.4	16.6	33.1	10.8	---
<b>4 Work-related injury deaths per 100,000 population<sup>6</sup></b> . . . . .	3.0	2.9	2.8	1.7	2.2	3.2
<b>5 Suicides per 100,000 population (ICD-9 nos. E950-E959)<sup>5</sup></b> . . . . .	11.2	11.9	6.9	12.2	6.6	---
<b>6 Homicides per 100,000 population (ICD-9 nos. E960-E978)<sup>5</sup></b> . . . . .	9.4	5.5	33.4	11.9	5.4	---
<b>7 Lung cancer deaths per 100,000 population (ICD-9 no. 162)<sup>5</sup></b> . . . . .	38.3	38.0	47.3	22.7	18.0	---
<b>8 Female breast cancer deaths per 100,000 females (ICD-9 no. 174)<sup>5</sup></b> . . . . .	21.0	20.5	27.5	10.4	11.0	---
<b>9 Cardiovascular disease deaths per 100,000 population (ICD-9 nos. 390-448)<sup>5</sup></b> . . . . .	174.9	167.2	259.4	132.9	110.5	---
Heart disease deaths per 100,000 population (ICD-9 nos. 390-398, 402, 404-429) <sup>5</sup> . . . . .	138.3	133.1	198.8	104.5	78.9	---
Stroke deaths per 100,000 population (ICD-9 nos. 430-438) <sup>5</sup> . . . . .	26.7	24.7	45.0	21.6	25.8	---
<b>10 Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome<sup>7</sup></b> . . . . .	25.7	<sup>8</sup> 13.9	<sup>8</sup> 90.5	12.3	5.8	42.3
<b>11 Reported incidence (per 100,000 population) of measles</b> . . . . .	0.1	---	---	---	---	---
<b>12 Reported incidence (per 100,000 population) of tuberculosis</b> . . . . .	8.7	4.9	23.5	14.5	43.0	17.8
<b>13 Reported incidence (per 100,000 population) of primary and secondary syphilis</b> . . . . .	6.3	<sup>8</sup> 0.8	<sup>8</sup> 46.2	3.0	0.6	2.1
<b>14 Prevalence of low birthweight as measured by the percentage of live-born infants weighing under 2,500 grams at birth</b> . . . . .	7.3	6.2	13.2	6.5	6.8	6.3
<b>15 Births to adolescents (ages 10-17 years) as a percentage of total live births</b> . . . . .	5.3	4.3	10.8	8.7	2.2	7.6
<b>16 Prenatal care as measured by the percentage of mothers delivering live infants who did not receive care during the first trimester of pregnancy</b> . . . . .	18.7	16.4	29.6	33.3	20.1	29.2
<b>17 Childhood poverty, as measured by the proportion of children under 15 years of age living in families at or below the poverty level</b>						
Under 18 years . . . . .	20.8	16.2	41.9	---	---	40.0
Under 15 years . . . . .	21.5	16.8	43.3	---	---	40.6
5-17 years <sup>9</sup> . . . . .	19.0	---	---	---	---	---
<b>18 Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year<sup>10</sup></b> . . . . .	32.9	30.9	42.0	22.5	55.0	57.2

--- Data not available.

<sup>1</sup>Includes racial and ethnic groups not shown separately.

<sup>2</sup>Hispanic origin can be of any race.

<sup>3</sup>1991 data; data are obtained from the Linked File.

<sup>4</sup>Data are for 49 States and the District of Columbia.

<sup>5</sup>Age adjusted to the 1940 standard population.

<sup>6</sup>Data are for people 16 years and over.

<sup>7</sup>By date of diagnosis. Adjusted for delays in reporting; not adjusted for underreporting.

<sup>8</sup>Data are for the non-Hispanic population.

<sup>9</sup>Related children in families.

<sup>10</sup>Data based on 1990 county population estimates.

Indicator	Data Source
1-3, 5-9, 14-16 . . . . .	National Vital Statistics System, CDC, NCHS.
4 . . . . .	Census of Fatal Occupational Injuries, Department of Labor, Bureau of Labor Statistics.
10 . . . . .	AIDS Surveillance System, CDC, NCID. Data are AIDS cases reported by year of diagnosis, adjusted for reporting delays. Based on cases reported to CDC through December 1996.
11 . . . . .	National Notifiable Disease Surveillance System, CDC, EPO.
12 . . . . .	Tuberculosis Morbidity Data, CDC, NCPS.
13 . . . . .	Sexually Transmitted Disease Surveillance System, CDC, NCPS.
17 . . . . .	Current Population Survey, U.S. Bureau of the Census.
18 . . . . .	National Air Quality and Emission Trends Report, Office of Air and Radiation, U.S. Environmental Protection Agency.

**Table VI. Age-related objectives: United States, 1987–95**

<i>Objectives</i>	<i>Baseline</i>						<i>Target 2000</i>
	<i>1987</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	
Infant mortality (per 1,000 live births) . . . . .	10.1	8.9	8.5	8.4	8.0	7.6	7
Children 1–14 years (total deaths per 100,000) . . . . .	33.7	30.7	28.8	29.8	28.5	27.8	28
Adolescents and young adults 15–24 years (total deaths per 100,000) . .	97.8	100.1	95.6	98.5	98.0	95.3	85
Adults 25–64 years (total deaths per 100,000) . . . . .	426.9	400.7	394.7	400.1	398.6	397.3	340
People 65 years and over (difficulty in performing two or more personal care activities per 1,000) . . . . .	1111	---	---	---	---	---	90

--- Data not available.

<sup>1</sup>1984–85 data.

Data Sources: National Vital Statistics System, CDC, NCHS.

For people 65 years and over: National Health Interview Survey, CDC, NCHS; National Nursing Home Survey, CDC, NCHS.

**Table VII. Published issues of *Healthy People 2000 Statistical Notes***

<i>Number</i>	<i>Title</i>	<i>Date of Issue</i>
1	Health Status Indicators for the Year 2000	Fall 1991
2	Infant Mortality	Winter 1991
3	Health Status Indicators: Definitions and National Data	Spring 1992
4	Issues Related to Monitoring the Year 2000 Objectives	Summer 1993
5	Revisions to Healthy People 2000 Baselines	July 1993
6	Direct Standardization (Age-Adjusted Death Rates)	March 1995
7	Years of Healthy Life	April 1995
8	Evaluating Public Health Data Systems: A Practical Approach	June 1995
9	Monitoring Air Quality in Healthy People 2000	September 1995
10	Health Status Indicators: Differentials by Race and Hispanic Origin	September 1995
11	Operational Definitions for Year 2000 Objectives: Priority Area 20, Immunization and Infectious Diseases	February 1997
12	Operational Definitions for Year 2000 Objectives: Priority Area 13, Oral Health	May 1997
13	Healthy People 2000 Midcourse Revisions: A Compendium	August 1997
14	Priority Data Needs: Sources of National, State, and Local-level Data and Data Collection Systems	October 1997
15	Operational Definitions for Year 2000 Objectives: Priority Area 6, Mental Health and Mental Disorders	October 1997
16	Operational Definitions for Year 2000 Objectives: Priority Area 14, Maternal and Infant Health	October 1997
17	Operational Definitions for Year 2000 Objectives: Priority Area 1, Physical Activity and Fitness	In preparation

For answers to questions about this report contact:

Data Dissemination Branch  
National Center for Health Statistics  
Centers for Disease Control and Prevention  
Public Health Service  
6525 Belcrest Road, Room 1064  
Hyattsville, MD 20782  
(301) 436–8500  
E-mail: [nchsquery@cdc.gov](mailto:nchsquery@cdc.gov)  
Internet: <http://www.cdc.gov/nchswwww/nchshome.htm>